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ORIGINAL LECTURES.

ON THE TREATMENT OF TYPHOID FEVER.[1]

A Clinical Lecture.

BY PROF. DUJARDIN-BEAUMETZ,

OF PARIS.

GENTLEMEN: There is, perhaps, no question in therapeutics which has caused so much discussion as the treatment of typhoid fever, and, if I were to follow out all the lines of inquiry which this subject has opened, I should require, not one lecture, but the entire course. I shall, then, be as brief as possible on points of theory, and dwell rather on practical conclusions. Whether you practise in the country or in the city, you will continually meet with cases of abdominal typhus. Last year (1882) you saw our wards filled with the victims of one of the most severe epidemics that have ever afflicted the population of Paris, and the hall of the Academy of Medicine still rings with the passionate discussions which were raised by the various questions pertaining to this great problem of hygiene and therapeutics.

Etiology, as I have often told you, has an important bearing on the treatment of disease; you recognize, then, the propriety of considering first the causes of typhoid fever; for, if they were absolutely known to us, we should be able henceforth to establish on a scientific basis the prophylactic treatment of this disease. This particular point in the study of dothinenteritis has been especially investigated during the last few years, and we shall have here to discuss the contagiousness and spontaneity of this affection. According to some authorities, typhoid fever is always the result of a particular contagion; according to others, it comes from a miasmatic poison. You cannot be ignorant, Gentlemen, of the difference which separates *contagium* from *miasm*, a distinction well established by Liebermeister; *contagium*, coming from specific, morbific agents, which always take their origin and undergo development in a diseased organism; *miasm*, on the contrary, being generated outside of, and independent of, an infected organism. To make more orderly and clear the exposition of this difficult subject, I shall commence with points which are best established and least open to dispute; then I shall take up those which are most amenable to discussion.

To-day, everybody is agreed in admitting the contagiousness of typhoid fever. It is especially in our rural districts that this contagion is observed in its worst form, and every year the reports made to the Academy of Medicine on the prevalent epidemics contain facts establishing the contagiousness of this disease. We can go even further, and declare that to-day the active principle of this contagium has been determined. This principle is found exclusively in the stools of typhoid patients, and it needs but a very minute quantity of this pernicious element in potable water to communicate ileo-typhus to all who drink of it. We possess, to-day, a considerable number of observations which establish this fact on an undisputable basis. The latest and most accurate is, assuredly, the observation published by Dionis des Carrieres, concerning the epidemic which lately devastated the city of Auxerre, where one of the springs which supply the city was proved to have been polluted by the dejections of a woman sick with typhoid fever. The entire population which derived its drinking water from this source was infected, and there were few that did not suffer more or less; those parts of the city, however, which did not make use of this water had entire immunity from the epidemic.

The attempt has been made by experiments on animals to elucidate this subject, but these have given uncertain results, and to the positive experiments of Birch-Hirschfeld, of Letzerich, and of Tizzoni, we must oppose the negative results of Robert Bahrd and Motschutkoffsky; moreover, the basic premise of these researches is under dispute, for it is not proved that the lower animals can contract typhoid fever.

But it is not enough to know that it is by the dejections that typhoid fever is communicated. Pathologists, guided by the theories of Pasteur, have sought in the dejections, and even in the tissues of victims of the disease, the microbe which contains the contagious principle. Unfortunately, we have not here any positive information; not because micro-organisms are not exceedingly abundant in the stools of typhoid patients, but because amid this abundance it is difficult to tell exactly which one of these microbes is the essential element of dothinenteritis. It is generally known that Recklinghausen has found micrococci, Eberth rod-like forms, and Klebs has described, under the name of *bacillus typhosus*, certain elongated filaments; but despite these researches, and those of Koch, of Meyer, of Friedlander, of Maragliano, of Almquist, we are still ignorant of the real microbe of typhus abdominalis. In a word, the parasitic theory of typhoid fever is almost certain, but it has not yet been scientifically demonstrated in a rigorous manner.

As opposed to this doctrine of contagiousness, we must allude to that of spontaneity. Struck by the fact that typhoid fever exists endemically in all places where are accumulated a great number of individuals—as in our great city; moved also by the appearance of certain epidemics apart from all known contagion; comparing, moreover, the typhus of armies with the abdominal typhus of great cities, certain authorities have maintained that typhoid fever may be produced spontaneously under the influence of bad hygienic conditions; and the cause has been by turns assigned to fecal matters, overcrowding, spoiled alimentary substances, and even to certain bad geological conditions of the soil. Let us rapidly examine each of these points.

Murchison has been the chief defender of the first of these causes, and he has labored to show that fecal

[1] Translated from advance sheets by E. P. Hurd, M.D., of Newburyport, Massachusetts.

matters may spontaneously develop a miasmatic principle which, entering the human system, may engender there ileo-typhus. Between him and Budd quite a lively discussion arose; Budd maintaining that fecal matters were dangerous only when they were fouled by the dejections of a typhoid patient.

These are the two so-called fecal theories of typhoid fever. It was, however, a mistake to confound these theories under one name, for if Budd's view be correct, Murchison's cannot be; for it is not yet rigorously demonstrated that fecal matters may spontaneously generate the typhoid poison. This fecal theory has served as argument to the adversaries and to the partisans of the exclusive sewerage doctrine, which condemns the fixed privy-vaults and the separate systems of removal, and insists that all night-soil shall be consigned to the public sewers, which shall be constantly flushed with running water—the latter, with its excrementitious products, being finally subjected to the filtering and purifiying action of the soil. This whole matter of sewerage is not yet settled; yet despite the opposition in certain quarters, the majority of hygienists and civil engineers are of opinion that those cities which have the best system of sewerage are the best protected from typhoid epidemics.

I do not wish to enter into the details of this discussion, which would draw us away from our subject. I shall only call your attention to the action of oxygen on all putrescent materials floating in sewers—an action which Fauvel has clearly shown in making it plain that this oxidation is a veritable combustion, which rapidly destroys the infectious element in night-soil; and we see in this an explanation of the fact that the South and East, despite their deplorable hygienic conditions, manage (by free exposure of their filth to atmospheric air) to keep tolerably free from epidemics. Although Rochard has affirmed that it would be easy to develop typhoid fever by the simple fact of massing people together in close quarters and under bad hygienic conditions, I believe that this overcrowding is a more powerful factor of typhus exanthematicus than of abdominal typhus. I make the same reserves in reference to the subject of alimentation as the determining cause of ileo-typhus. Wernich, comparing the bacillus of typhoid fever with that of putrefaction, has ably maintained that the use of spoiled meats is a cause of typhoid fever. It has also been asserted that the use of water polluted by organic detritus, and that even milk contaminated by water of bad quality, might also be a cause. I consider all these circumstances as adjuvants; but no one of them alone seems to me sufficient as a determining cause of this disease. It is the same with geological conditions. The doctrine which is supported by Pettenkoffer and Buhl, attributes epidemics of typhoid fever to a lowering of the stratum of subterranean water. Observations have in fact demonstrated that if this theory is conformable to what has been observed at Munich, it is not applicable to epidemics in other parts of Europe.

As you see, Gentlemen, it is not yet proved that any of the causes just alleged may spontaneously give rise to typhoid fever; and I am ready, for my part, to give my adhesion to the parasitic theory of this affection. It is true that this doctrine of *contagium vivum* denies all spontaneity, but it enables us to explain—thanks to the theory of vaccination (or, if you prefer so to put it, of preservation by attenuated virus), it enables us, I say, to explain the immunity of typhoid patients from all future attacks of the disease. It enables us, also, to understand the comparative immunity of individuals who have long lived in Paris as contrasted with those who have lived there but a short time; the first having acquired, by long exposure to the virus, constitutional modifications which prove a relative protection.

It enables us, moreover, to hypothesize atmospheric or telluric conditions, favoring in some degree the culture of germs of the typhoid contagion, without being compelled quite to indorse the explanation which Ernest Besnier has given of the march in accordance with seasons of the dothinenteric epidemic. But, on the other hand, this theory of living contagium leaves in the shade many points in this interesting part of etiology, and in particular the epidemic character of this affection, and the special features which distinguish each epidemic—circumstances which render so difficult the application of statistics to the study of the therapeutics of typhoid fever. Nevertheless, despite these reserves, I adopt the theory of contagium rather than that of miasm.

From the facts which I have just set forth, flow very important hygienic applications, some concerning public hygiene, into the consideration of which I shall not enter, others concerning private hygiene, and which in their totality constitute the hygienic and the prophylactic treatment of typhoid fever. As it seems to be absolutely proved that the typhoid virus is found in the fecal matters of persons suffering from the disease, and that water polluted by these dejections is the most powerful factor of the contagion, it follows that it is a duty thoroughly to disinfect these alvine dejections, and the objects which they have polluted. It follows, also, that one should have a careful surveillance of potable water, and, if not certain of its purity, such water should be boiled before being used, or some of the table waters should be employed, such as Apollinaris. Moreover, I refer you in this connection to the instructions issued by the Council of Hygiene, of which I am a member, concerning the measures to be taken to stay the progress of the epidemic of typhoid which raged over this city in 1882.

So much for the prophylactic treatment. The hygienic treatment is of capital importance, and the more you see of this disease the more you will appreciate its importance. Under this head I shall examine, successively, the dietary regimen, the measures to promote cleanliness, and the care of the sick-room.

For the severe and cruel regimen of Broussais, who opposed feeding fever patients, we now substitute the administration of nourishment as a necessary part of the treatment, and no disease so markedly shows the advantages of generous alimentation. You must, then, feed your typhoid patients; but, remembering the disorders of which the digestive tube is the seat, you should exercise great care in the choice of nourishment, which should be chiefly liquid; and every substance should be prohibited which might become a source of irritation in the alimentary canal. Give your patients, then, milk, broths, well-strained gruels, and stimulating drinks, such as wines and vinous lemonades. These beverages constitute the only drinks permissible. I make exception of plain lemonade, a beverage which, without possessing any marked anti-febrile properties, is always refreshing to fever patients. When there exist gastric disturbances, and you wish to support the patient, you may give iced

champagne. It is generally a good thing to add ice to the ordinary drinks of the patient.

But the time when you should redouble your watchfulness is when you come to the convalescing period of the disease. During convalescence, the patient either has a ravenous appetite or he has no appetite at all. Where appetite exists and is imperious, you will have to exercise rigorous care in prohibiting too free indulgence in all kinds of food. For my part, I have three or four times in my life seen convalescent patients die from excessive eating. I remember well a patient in the Hôtel Dieu, where I was attending, who was convalescing from a very severe attack. He went out of the hospital, and the first thing he did was to help himself to a hearty meal. The next day he came back to the hospital with all the symptoms of peritonitis, from which he died. The autopsy revealed an intestinal perforation. You should have such facts always in mind when you direct the dietary of fever patients during their convalescence, and although the instinct for food at such times is a natural one, the utmost judgment is required in its gratification.

In other cases, there are anorexia, vomiting, and dyspepsia; symptoms which, as our colleague, Anatole Chauffert, has well shown in his thesis on the gastric complications of typhoid fever, depend on the alterations which the gastric mucous membrane has undergone from the typhoid process. Here we must apply all the measures which are addressed to the treatment of ulcerous gastritis—a diet of pure milk, which gives rest to the enfeebled stomach, milk punch with meat powder; this is an excellent way of giving this highly nutritive preparation. It may, finally, be necessary to resort to lavage of the stomach and to forced feeding.

It is not enough to support your patients; there must be the most scrupulous care about cleanliness, and it will not do to allow them to be defiled by their urine or alvine dejections. In the curious and interesting narrative which Dr. Stewart has given of his personal experiences in an attack of typhoid fever, he alludes to the disagreeable sensations which the delirious patient suffers from the wet, soiled underclothing in contact with his body, as well as from intense light and loud noise. You can promote this cleanliness of the person and the healthy action of the skin by frequently bathing the entire surface with cold or tepid water containing a little thymol or antiseptic vinegar. These lotions not only keep the patient clean, but they also lower the temperature and diminish that sensation of heat and dryness so painful to fever patients. These antiseptic spongings should be repeated two or three times a day.

As for eschars and ulcerations of the skin, they may be prevented by frequently changing the position of the patient, who must not be allowed to lie all the time on his back; and it is always a good plan, where the patient can afford it, to have the bedclothes upon which he lies made of silk instead of cotton, or else to provide him with a water-bed.

Your attention ought to be called to the condition of the mouth and throat of these patients—a matter of considerable importance. You should urge the attendants several times a day to cleanse the teeth and gums of the sordes which collect upon them, and you must insist that they keep the tongue moist; there is nothing better for this purpose than the alkaline waters of Vichy and Vals. This dryness of the tongue is one reason why it is so hard for the typhoid patient to talk, and you can only rid him of this inconvenience by cleansing applications and gargles.

You have seen the great importance which is placed on disinfecting the stools of typhoid patients. These dejections, beside the contagious principle which they contain, have a marked gangrenous odor, which poisons the room of the patient; there is, then, a double necessity for prompt disinfection. You can accomplish this by allowing the fecal matters to be passed in a vessel containing a certain quantity of a two per cent. solution of the sulphate of zinc, copper, or iron, and in taking care also to cleanse with the same solutions all water-closets receiving these dejections. Lavements—and I speak here only of disinfectant lavements—have also the same object. One of the best and most inoffensive is that recommended by Bouchard, and which consists of a mixture of powdered charcoal in water, in the proportion of two or three spoonfuls to the pint. These lavements cause no trouble, and have the advantage of destroying the nauseous smell of the fecal matters.

You should also examine with great care the urinary functions of your patients. You know, in fact, how frequent is retention of urine in typhoid patients, and that, in consequence of the delirious condition in which they are plunged, they are frequently unable to express their natural wants. You should, then, frequently examine the abdomen, and resort to catherization when you find that the bladder is not thoroughly emptied.

It is not everything to have directed the alimentation of your patient, to have minutely indicated all the pains that should be taken for cleanliness and disinfection; you must also furnish indications no less precise concerning the ventilation of the sick-room. You should choose a room which is well aired and ventilated, and place the bed of the patient in the middle of this room; the bed should be narrow, moderately elevated, and divested of curtains and all canopy, so that the attendants can readily and rapidly wait on the patient. If in your power to do so, you should choose two rooms adjoining each other, so that the patient may alternately be transported from one to the other. You should allow but a modicum of light to enter this room, and no lamp should be kept burning in the night-time. Strong light is painful to the typhoid patient and favors the delirium. But few persons ought to remain in the room; one commonly suffices. Urge on the attendants the importance of keeping silence, and if they must converse, let them do so in an undertone. Stewart, in the narrative of which I have just spoken, dwells much on the painful sensations which he experienced when loud conversation was going on in his room.

Generally, the delirious manifestations do not acquire a high intensity; nevertheless, there are cases in which there exists a veritable delirium of action, and which necessitates forcibly keeping the patient in his bed. It is best in these cases, as far as possible, to accomplish this by the aid of the persons who attend the patient, and not to resort to rigorous measures of restraint, such as the strait-jacket, unless other means fail. By the strangulation which it imposes, by the absolute and continuous dorsal position which it necessitates, by the pressure which it exerts on the thorax—the strait-jacket favors

the visceral congestions so frequent in this fever, and may even be a cause of death, as I have several times witnessed in my hospital service.

Apropos of this typhoid delirium, and without departing at present from the hygienic ground which we now occupy, I cannot too much recommend you to cut the hair of your patients, especially in the case of young females, who are apt to have long, thick hair. This is the more needful where there is much mental disturbance. I have often observed considerable improvement in the delirious manifestations by cutting the hair; and this cannot be much of a sacrifice to patients who reflect that their hair will all fall out during the course of convalescence.

You will, perhaps, think, Gentlemen, that I have gone into too many little details about the hygienic management; but all these points have their importance, and I can affirm that typhoid fever well *nursed* is half cured. The necessity of careful attention to hygiene is exemplified in the difference in mortality which obtains between hospital and private practice; for in our hospitals we are not able, by reason of the peculiar conditions in which we are placed, and especially from want of sufficient nurses, to apply these hygienic rules as thoroughly as we would like. Therefore, I earnestly recommend you in your private practice to attend scrupulously to the minor as well as the major details of hygiene. How many severe typhoid cases have I seen which owed their recovery to these hygienic means alone, and to the faithful services of some friendly attendant—rendered with that devotion and that self-sacrifice which are only to be found in the bosom of the family!

(To be continued.)

ORIGINAL ARTICLES.

THE OINTMENT OF BOROGLYCERIDE (UNGUENTUM BOROGLYCERIDI).

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THE following remarks, relative to the use of unguentum boroglyceridi in certain ocular diseases, are based on an extended experience of over one year, during which time many cases have been treated. The following is the formula for making the ointment:

℞.—Boroglyceride, 50 per cent. solution in glycerine, ... ℥ij.
Vaseline, ... ℥vj.
Ol. rosæ, ... q. s.—M.

Heat the boroglyceride, and, while hot, add it slowly to the vaseline, stirring constantly until thoroughly mixed. To this formula may be added mydriatics, myotics, and the stronger astringents. I have in my possession samples of the ointment containing atropiæ sulph. gr. iv to ℥j, hyoscyamiæ sulph. gr. ij to ℥j, homatropiæ hydrobrom. gr. ij to ℥j, eserin. sulph. gr. ij to ℥j, cupri sulph. gr. ij to ℥j, aluminis pulv. gr. vj to ℥j, and zinci chlor. gr. ij to ℥j. These samples were prepared by Evans, Druggist, 1104 Chestnut Street, August 1, 1883, and have remained pure and sweet, preserving their consistency, and the power of the suspended drugs unaltered.

The advantage claimed for the ointment over the boroglyceride in solution, in ocular therapeutics, is that it can be more easily applied to the eyes of children by the untrained hand; also, that we have a vehicle in which we can combine two drugs, one having a mydriatic (atropiæ sulph.) as well as an irritating effect on the conjunctiva, the other (boric oxide) astringent qualities. It is the experience of every ophthalmic surgeon that an aqueous solution containing a suspended drug, standing in a warm temperature for several days, soon becomes filled with a fungus. A careful ophthalmic surgeon would hesitate to apply such liquids to an ulcerated cornea, or even where there is conjunctivitis. The continued use of a solution of atropia will often excite an acute conjunctivitis and excessive dryness of the throat or erythema of the face, and in a very few cases marked atropia poisoning. By using the atropia suspended in the boroglyceride ointment, we escape these troubles. The boric oxide, being an astringent, counteracts the irritating properties of the atropia, the vaseline closing the mouths of the canaliculi, thereby preventing the atropia being carried through the lachrymal canal to the throat. The atropia is also, on account of the closure of the mouths of the canals, retained longer in the palpebral sacs, hence a more thorough dilatation of the pupil and paralysis of the ciliary muscle are obtained with a lesser quantity of the drug.

In certain purulent diseases of the eye I prefer the boroglyceride in glycerine.[1] The following ocular troubles respond favorably to the action of the ointment when applied in a quantity about the size of a split-pea every three hours.

1. Ulcers of the cornea when arising from anæmia.
2. Phlyctenular ulcers both of cornea and conjunctiva.
3. Ulcer rodens due to infection, and ramolissement of the cornea due to pressure or exposure.
4. Marginal ulcers of the cornea found in strumous children; here the addition of eserin. sulph. (gr. ij to ℥j) hastens the reparative process.
5. Trephined ulcers (central) in children, and ulcers of the cornea in old individuals, and corneal infiltration with pus.
6. *Not* in abrasions of the cornea after removal of foreign bodies, nor in recent wounds of the cornea or sclerotic, either with or without prolapse of the iris.
7. In astigmatic keratitis; accompanying this affection we have supra- and infra-orbital pain, and at times temporal reflex,[2] either of which is a diagnostic symptom. The addition of atropiæ sulph. (gr. iv to ℥j) renders the action of the ciliary muscle passive, which being the exciting factor, relief is at once experienced. The ametropia must

[1] See THE MEDICAL NEWS, May 26, 1883.
[2] Ibid., March 8, 1884.

be corrected, or the patient will have recurrent attacks.

8. In granular lids of young persons, complicated with pannus, the addition of atropiæ sulph. (gr. iv to ʒj) or of cupri sulph. (gr. ij to ʒj) is of the greatest value when we have the condition known as keratitis trachomatosa present.

9. In blepharitis marginalis, eczema of lids, and conjunctivitis; not, however, when there is excessive lachrymation present in the latter trouble. In these cases, the boroglyceride solution in glycerine (fifty per cent.) is preferable. The glycerine being hygroscopic has an affinity for water, the boric oxide being precipitated at once stimulates the diseased condition to healthy action, and relief soon becomes manifest.

In ophthalmia neonatorum, a fifty per cent. solution of boroglyceride in glycerine is applied every two hours (*ad. lib.*), and an ointment of boroglyceride applied to the margins of the eyelids at night.

When applying the boroglyceride in solution, care must be observed in separating the eyelids; this can be done with lid-retractors. In elevating the lids with the retractors, a pouch is made which can be filled with the solution.

An excellent and cheap retractor may be made of a hairpin; curve the looped end to a right angle with its tines. This instrument is safer than the lid-retractors usually found in the ophthalmic instrument case, and is always at hand.

When the corneæ become hazy or opaline in ophthalmia neonatorum, use the ointment containing eserin. sulph. (gr. ij to ʒj) every two hours; a piece the size of a split-pea is to be applied, in addition to the solution of boroglyceride. By following this mode of treatment, the most troublesome cases are cured in a very few days.

My friend, Dr. D. N. Dennis, who has had extended experience in the use of the drug in the treatment of ophthalmia neonatorum, has very kindly placed at my disposal the clinical notes of one of his cases recently treated in private practice.

"On the the sixth day[1] after birth, a purulent discharge was first noticed; the eyelids were œdematous and swollen. The following treatment was at once instituted. The eyes were thoroughly cleansed with tepid water, and a thirty-five per cent. solution of boroglyceride in glycerine was dropped into each eye every two hours (enough to fill the conjunctival sac). The first noticeable change for the better was about thirty hours after the treatment was commenced. The œdema and swelling had greatly decreased, the pus had lessened in quantity, and the eyes looked in better condition generally. The treatment was continued. After its thorough use for three days, it was found that the purulent character of the pus had changed. The solution was then instilled into the eyes every four hours instead of every two; this was continued for several days, when the discharge of pus entirely stopped, and, with the exception of some redness of the conjunctiva, the eyes were in a healthy condition."

As boroglyceride is a most valuable therapeutic agent in other fields of medicine, I have asked my friend Dr. Granville Faught, who has a large and varied field in which to make investigations, to contribute for the benefit of the general practitioner, especially those physicians living remote from the medical centres and inland, his experience with the drug in general practice.

Dr. Faught writes: "It is now nearly two years since Dr. Fox and I commenced the use of boroglyceride in the wards of the Germantown Hospital. Since resigning my position as resident physician in the above-named institution, I have continued its use not only in private practice, but also in the out-patient department of one of the largest charity dispensaries of this city, and it is on this extended experience we base our remarks. Boroglyceride is a non-crystalline, amber-colored, vitreous substance, insoluble in water and alcohol, but very soluble in glycerine. It is formed by heating sixty-two parts of boracic acid and ninety-two parts of glycerine until it ceases to lose weight, which will be when it has lost about one-third. It appears to be, strictly speaking, a saturated solution of boric oxide in glycerine. The addition of water decomposes it, forming boric acid. In therapeutic measures, it is found most convenient to use a fifty per cent. solution in glycerine, which is of the consistency of honey.

"Experience confirms it as an antiseptic astringent of great value in almost all catarrhal affections. It is a good surgical dressing after the acute inflammatory stage, and its application has been followed by good results in relaxed conditions of the throat, post-nasal catarrhs, and gleety discharges; its addition to poultices keeps them sweet and clean in hot weather, even over long periods. It is of the utmost value in gynecology, and supplies a long-felt want. In such cases it should always be applied upon a cotton or jute tampon and allowed to remain from twelve to twenty-four hours. I have seen them on several occasions remain in the vagina, by accident, nine days or longer, and when removed they were not foul. Lacerated cervices, erosions, subinflammatory uterine disease, and leucorrhœa, all show great improvement from its use. I have frequently seen a single tampon remove a long-standing leucorrhœa. For these applications we have also used solutions containing iodine (gr. xx–xxx to ʒj) and thymol (ϑj to ʒj). In pruritus of the vulva or anus, it is the treatment we have used. A friend reports to me the case of a patient of his, whose suffering from genital pruritus was so great as to lead her friends to be anxious for her mental state, in which, after all other forms of treatment had failed, an application of boroglyceride brought instantaneous relief. The addition of quiniæ sulph. (ʒj) to ung. boroglyceridi (ʒj) is very efficacious in pruritus ani. We have several times given it internally, but have never seen any results which we thought were better than from the use of boracic acid."

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[1] I may here state that if the pus makes its appearance the second or third day after birth in large quantity, the case will prove refractory, and is not responsive to mild remedies.

A CONTRIBUTION TO THE THERAPEUTICS OF KAIRIN.

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As this drug has but recently made its appearance in the field of clinical medicine, and is comparatively unknown to most practitioners, a brief review of its history will not be inappropriate.

It is well known to chemists that the alkaloid *quinine* contains a very large proportion of hydrogen, and recent investigations have shown that it exists in the quinine molecule in combination with *quinoline*. Taking advantage of this knowledge, Drs. Fischer and König,[1] of Munich, instituted a series of experiments in the hope of finding a body possessed of an action similiar to quinia by a synthesis of its elements. By a variety of combinations (beginning with hydrated quinoline), the chemists have succeeded in producing "kairin," of which the *hydrochloride* ($C_{10}H_{13}NO,HCl$) is the preparation offered for use. It occurs in the form of a crystalline powder of a bright, grayish-yellow color. It is readily soluble in water, and has a bitter-saline, somewhat aromatic taste, which, however, is very transient.

As far as can be ascertained, kairin was first used clinically by Dr. Wilhelm Fischer,[2] of Berlin. He found that when administered to healthy, robust adults, it exerted no physiological action whatever, and was perfectly indifferent toward the temperature. It caused no untoward symptoms, such as headache, humming in the ears, etc. According to Girat's experiments, the toxic dose ranges between one and two grains to the pound of the weight of the animal. The symptoms of an over-dose are those of heart-failure, viz., weak pulse, cold extremities, cyanosis, etc.

Soon after the discovery of the drug, Dr. Filehne,[3] of Erlangen, made a series of careful experiments with it in various diseases marked by high temperature, including pneumonia, phthisis, septicæmia, typhoid fever, and acute articular rheumatism. As a result of his observations, he found it to be a safe and efficient antipyretic, quick in its action, and not unpleasant in its effects. He recommends its use tentatively, in commencing doses of about seven and a half grains per hour, to adults, for four hours, or until the temperature has fallen to 100° F.; the dose is then lowered to three or four grains, to be again increased when the temperature rises. He states that by carefully experimenting during the first day, the proper dose for each individual may be ascertained, which may be adhered to in the subsequent treatment.

Filehne's recommendations have been carried out by subsequent observers, but in some cases with different results. Seifert,[4] for example, reports two cases of severe pneumonia in which he gave doses of eleven grains on alternate hours. No change in the pulse or temperature was observed, and vomiting ensued in both cases. In another case, the temperature was lowered, but the patient became collapsed and died.

Riegel's[1] results were likewise unfortunate in the treatment of pneumonia with kairin. He found that, although in some cases it lowered the temperature nearly to the normal standard, it rose again almost immediately after the discontinuance of the drug. Besides, no improvement in the subjective symptoms, as described by Filehne, was noticed, and there was frequent tendency to great depression, amounting almost to collapse. He concludes, therefore, that kairin is dangerous in pneumonia, on account of its depressing action, and discountenances its use in asthenic forms of the disease.

On the other hand, we have numerous reports of the beneficent action of the drug. Dr. Sassetzki[2] employed it with good results in a case of typhus fever. It lowered the temperature markedly, but caused no sweating. Dr. Knipping,[3] of Neuwied, gave it with marked success in a case of puerperal pyrexia, in which quinia had failed, and where cold was precluded by the weakness of the patient. He noticed profuse diaphoresis, though there was very little decline in the pulse-rate. It was continued for a week with good results, and the patient recovered. Dr. Paul Guttmann[4] employed kairin in a large number of cases, including a great variety of diseases. His results were largely confirmatory of Filehne's, as were also those of Dr. H. A. Janssens,[5] of Holland.

So far, kairin has received very little notice at the hands of investigators in the United States, although frequent attention has been called to it by the medical press. During the summer of 1883 it was used in six cases of typhoid fever by Dr. George B. Shattuck,[6] of Boston. His results were in the main corroboratory of Filehne's, Knippings's, and Sassetzki's. In his opinion, kairin as an antipyretic may be considered as very efficient, prompt, and reasonably safe in its action, though he is fully sensible of the transitory character of its effects.

Dr. F. W. Draper[7] gave it in two cases of typhoid fever in the Boston City Hospital. He observed the usual antipyretic action of the drug, though little change was manifested in the pulse.

Dr. Thomas A. McBride,[8] of New York, in an interesting communication gives his experience in the use of kairin. He considers it unwise to reduce the temperature below 101° F., as he observed that, when it fell to a lower point, it was more likely to rise rapidly, and, if it did not, signs of collapse would appear (cold extremities, cyanosis, weak heart, etc.). As to the rigors which have been said to be induced by kairin, he considers them nothing more than the *chilly sensations* which usually accompany or succeed rapid exacerbations of temperature. On the

1 Vide article by W. Filehne, Berl. klin. Woch., Nov. 6, 1882.
2 Berl. klin. Woch. und Pharm. Zeit., 1882.
3 Berl. klin. Woch., April 16, 1883, *et seq.*
4 Centralblatt f. d. gesammte Therapie, June, 1883.

1 Algemeine Med. Cent. Zeit., July 28, 1883.
2 St. Petersburg. med. Woch., September 1, 1883.
3 Berl. klin. Woch., September 10, 1883.
4 Ibid., July 30, 1883.
5 Ibid., November 12, 1883.
6 Boston Medical and Surgical Journal, November 1, 1883.
7 Ibid., p. 417.
8 Medical Record, December 15, 1883.

whole, he regards kairin as a "safe and valuable antipyretic."

Though much has been said about the antipyretic action of this drug, no investigations have been made, so far as I can ascertain, of its action as an *antiperiodic*. Following is the history of a case of intermittent fever treated by the writer with kairin.

David C., æt. 5, an inmate of St. Stephen's Home for Children, was first seen about 3 P.M., November 5, 1883. The Sisters of Charity in the institution informed me that the patient had been suffering with severe chills, followed by high fever, on alternate days, for more than two weeks past. Quinia had been given during the first few days, but apparently without effect, and it had been relinquished, none having been given for a week. When seen at this visit the patient was found in the hot stage of a paroxysm of the fever. The temperature was 105½° F., pulse 138, respirations 39 and very superficial. The face was flushed, and there was extreme restlessness.

Patient was seen three hours later, when the "sweating stage" had become established. The surface was bedewed with a profuse perspiration, and the patient was sleeping calmly. The thermometer registered 101½°, and the pulse had fallen twenty-five beats a minute. Physical examination disclosed nothing save the fact that there was considerable emaciation.. It was evidently a typical case of simple intermittent fever of the *tertian* type. Ordered kairin in three-grain doses to be given every two hours, beginning at 7 o'clock the next morning.

November 6, 3.30 P.M.—Has taken four three-grain doses of kairin; seems to be a little dazed and stupefied and disinclined to talk; hands and feet are not quite as warm as natural, but the pulse is strong and regular; skin moist, and urine abundant—presenting the characteristic greenish appearance noticed by Fischer, Filehne, and others; temperature 98°, pulse 110, respirations 22; ordered kairin discontinued for to-day, but to be given in same doses and at same intervals to-morrow, with an occasional tablespoonful of brandy and milk.

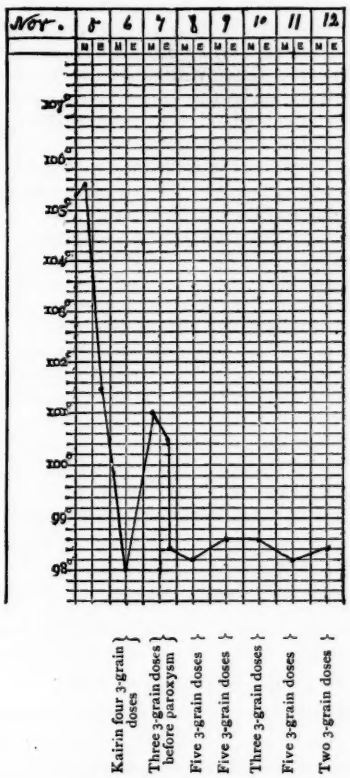
7th, 3.40 P.M.—(Hour for paroxysm). Has had but three three-grain doses of kairin, as the nurse neglected to begin early enough to give four, as ordered. The nurse informs me that the patient has had a slight rigor, which came on about an hour later than usual; the temperature is 101° F., pulse 120, respirations 24. A few herpetic vesicles are noticed about the lips; is bright and communicative, skin moist, and urine still greenish. A dose of kairin (three grains) was given, and the temperature, taken an hour later, was found to have fallen half a degree; defervescence continued until 8 P.M., when the temperature had reached the normal standard.

8th, 3.30 P.M.—Has had five three-grain doses of kairin; pulse, temperature, and respiration are normal; seems to be in good condition; moderate stimulation has been continued; there are no signs of heart-failure; the perspiration is profuse, and the urine is still deeply tinged.

9th, 3 P.M.—Has had five three-grain doses of kairin; temperature 98¾° F., pulse 90, respirations 21; has had no signs of rigor or fever to day; has no headache, and is very cheerful; appetite is returning.

10th.—No change since yesterday; is up and playing about the room, and seems as well as usual.

11th and 12th.—There has been no return of the fever, as shown by the temperature chart; kairin has been continued in diminished doses.



Intermittent fever—tertian type.

January 14, 1884.—There has been no recurrence of the paroxysm of chill and fever, and the patient enjoys his usual health.

In a case of typhoid fever in a boy, æt. 7, kairin was given with good results. The disease had progressed for several days, and during the evening exacerbation the temperature had attained a maximum of 106° before kairin was administered. On the day following this high temperature, eighteen grains of the drug were given (it was given in three-grain doses every two hours at first, but latterly the interval was diminished to one hour). It had the result of keeping the temperature down to 102½° at the height of the evening exacerbation; nor did it rise above this during the remainder of the fever, except on one day, when only two doses of kairin were given, it rose to 104.° It was found necessary to keep the patient constantly under the influence of the drug, as the temperature showed a tendency to rise within a few hours after the last

dose was given. It was found that by carefully observing the case, and employing moderate stimulation, the doses could be repeated almost *ad libitum*, without causing signs of collapse.[1] Kairin was continued for five consecutive days, and the case progressed to a favorable termination.

In a case of acute tuberculosis, with a temperature of 105°, kairin was given with the effect of lowering the temperature to 101°. It seemed to contribute to the comfort of the patient, though apparently without prolonging life, as the case terminated fatally on the eighth day of its administration.

In reviewing the investigations so far made with kairin, we are led to the following conclusions:

1. It is a decided febrifuge, rapid, though somewhat fugacious, in its action.

2. It diminishes the frequency of the heart's action to some extent, though the pulse-rate does not fall *pari passu* with the temperature.

3. The symptoms of collapse—cyanosis, cold extremities, etc.—may be entirely or in a large degree avoided, by close attention and the proper use of stimulants.

4. It is a tolerably constant diaphoretic.

5. Its action in intermittents, though not fully tested, warrants the belief that it possesses valuable antiperiodic properties, and as such should be carefully investigated.

6. Though kairin itself may not be found to possess all the properties of the alkaloid quinia, enough has been learned of its action to justify the hope that a perfect substitute may yet be found, and to inspire us with renewed confidence in the resources of organic chemistry.

A CASE OF COMPLETE TRANSPOSITION OF THE VISCERA, WITH NOTES.[2]

BY JOSEPH EICHBERG, M.D.,

PROFESSOR OF PHYSIOLOGY IN THE MIAMA MEDICAL COLLEGE, CINCINNATI.

IN the month of May of the year 1882 I was requested by Dr. W. H. Taylor to see with him a case of considerable interest, of which he promises to give the clinical features at an early day.

The subject was a young child, about two and a half years old, who presented at the umbilical depression a small opening, through which there passed considerable quantities of a light-yellow fluid. The opening was surrounded by indurated tissue for about one inch in every direction, easily admitted the probe for an inch and a half, and seemed to communicate with a large cavity situated immediately below the abdominal wall. The point of interest to the Doctor, at that time, was to ascertain definitely, if possible, whether the opening was an intestinal fistula, or communicated with any other viscus.

Having obtained a small quantity of the fluid above mentioned, I found, on microscopical examination, that it was composed almost entirely of finely divided fat (the child was subsisting at that time almost exclusively on milk, and received as medicine brandy and cod-liver oil), contained a few starch granules (from some potatoes taken surreptitiously the day before), and a considerable quantity of the large, nucleated columnar epithelium characteristic of the mucous membrane of the intestine. The result of this investigation left no doubt as to the nature of the opening, and a diagnosis of fecal fistula was made. There were circumstances, to be narrated in the clinical history, which rendered a prognosis, sufficiently grave from the nature of this single lesion, extremely unfavorable, and little hope was held out that the child could recover.

Some six or seven weeks after my first visit, I was notified that the child had died, after becoming more and more emaciated, and that the friends had consented to a post-mortem examination. I was obliged to make this at night, by a very indifferent candle-light, so that the results were not perfectly satisfactory. In proceeding in the usual way by making a longitudinal incision through the abdominal wall, I found the intestines matted together and firmly adherent to the parietes about a point corresponding with the artificial opening above mentioned. Careful dissection showed that the opening passed through the wall of the abdomen into an artificial cavity bounded on all sides by the peritoneal coat of adherent coils of the intestine, so that a circumscribed space of about an inch and a half in diameter was formed; this cavity was filled with a fluid of the same nature as that we had obtained during the life of the child. The posterior wall of the cavity, made up, like other parts, of intestinal loops, showed at one point an opening communicating, as we found by tracing down the intestine, with the central portion of the ilium, through which the intestinal contents passed, firstly, into the cavity, and then, through the fistula, to appear externally.

The coils of intestine had so completely filled the field, that I was not a little surprised, on drawing them down to continue my explorations, to find the larger part of the liver in the left hypochondrium, from which the stomach was entirely absent. The further course of the examination soon showed that I had to do with a case of complete transposition of the viscera, all of the internal organs being displaced so as to occupy similar positions on the opposite side of the body. The spleen was found on the right side, the stomach on the right side, the aorta to the right of the vertebral column, the sigmoid flexure on the right, the cæcum and ascending colon on the left side. Owing to the chronic peritonitis which had matted all parts together, to the poor light, and the youth of the child, it was not possible for me to trace the spermatic veins, to note the relations of the kidneys. The lungs and heart had undergone the same change of position; the right lung, as indicated by the presence of its three lobes, and the direction of its bronchus with relation to the trachea, being in the left half of the thorax, the left lung occupying the right side, in which, too, the heart was situated.

As to pathological lesions, there were found numer-

[1] The perspiration was often profuse.

[2] Read before the Cincinnati Medical Society, Jan. 29, 1884.

ous tubercular ulcers of the intestine, each ulcer being surrounded by a secondary crop of tubercles deposited in the subserous lymphatics, several ulcerations extending down to the peritoneal layer, and involving the large as well as the small intestine. The mesenteric glands were very much enlarged and caseous, two of them were almost entirely broken down, so as to constitute small abscesses. The lungs showed at the apex a few patches of lobular pneumonia with atelectasis of adjacent lobules; but no signs of tubercle were discovered here. It is probable that, in the course of the chronic tubercular process, adhesions were formed between several loops of intestine and the anterior abdominal wall; that the inflammatory products thrown out by the inflamed peritoneum, on the one hand, and about the gradually advancing ulceration, on the other, had finally undergone caseation and softening, and had perforated the anterior wall of the abdomen, so that when the tubercular ulcer finally perforated, it found in front of it a cavity, into which its contents were readily emptied, and from which they were constantly discharged. It was interesting to note the comparative absence of lesions in the lungs, the changes above mentioned as occurring there, being of recent date, and the atelectasis easily accounted for by the enfeebled condition of the child, rendering obstruction of the smaller bronchioles likely to occur from deficient expiration. The probable origin of the tubercular infection was to be sought in the enlarged and degenerated mesenteric glands.

I do not know whether the anatomical anomaly was recognized during life, but it is sufficiently important to merit a little attention. I have before met with one case of complete transposition in a living subject, the case being one that is annually presented to members of a class in physical examination at Vienna; and I am informed that Dr. Illowy of this city has a similar case under observation. I should have taken great pleasure in presenting this individual, but I learn that he is temporarily absent from the city. Dr. Illowy, however, assures me that, at an early date, opportunity will be given of showing the case.

Guttmann,[1] in demonstrating a case of transposition of the viscera before the Berlin Medical Society, says that, from more than one hundred cases collected by him, the anomaly is found more frequently in men than in women, the proportion being as two and a half to one; in ninety per cent. it is found in all the organs of the thorax and abdomen; in ten per cent. in the abdomen alone. Simultaneous transposition of the viscera of thorax and abdomen is complete in seventy-five per cent. of all cases. The duration of life is not influenced by this malposition, as more than half of the reported cases reached ages varying from twenty to eighty-four years.

Gruber comments upon seventy-nine cases studied by himself. Of these, seventy-one were cases of general transposition of all thoracic and abdominal viscera; in eight only abdominal. Seventy-eight occurred in human subjects, and one in the horse (Von Baer mentions a case occurring in a chicken). Forty-nine subjects were men, nineteen women. In eleven the sex was not mentioned. In two cases the subjects were fœtuses, twenty were children up to nine years old, two between fifteen and seventeen, and fifty-five adults between twenty and eighty-four years. The same average age was attained by both sexes. The spleen was wanting in three cases, rudimentary in one, divided into two in one, into three in one, and accompanied by accessory spleens in three cases. There was an abnormal position of the kidneys in eight cases; in one case there existed only one kidney; and in one case the spermatic vessels were not transposed.

In regard to the diagnosis of the position of single organs, we may, by percussion, determine the position of the heart, liver, spleen, stomach; and in some cases of the rectum on the right side, and of the ascending colon on the left. We may also determine the position of the œsophagus on the right of the trachea. Further, the slight lateral deviation of the spinal column, which is normally directed to the right (owing, probably, to the direction of the aorta, and not to the individual being right-handed), gives place to a deviation to the left side; though of thirteen reported cases eleven were right-handed. We may also suspect the transposition of the lungs if pectoral fremitus and the bronchial expiratory murmur are heard more clearly on the left than on the right side. Lloyd[1] mentions in addition that, in a case under his observation, the right testicle was lower than the left.

Von Puech[2] relates a case, reported by a physician of Nimes two hundred years ago, which is probably one of the earliest examples noted. In this case—very like our own—the autopsy was made on a child eighteen months old, weakly from its birth, which died from caseation of the mesenteric glands.

That these cases are not only interesting as anatomical anomalies, but may seriously endanger success in operative measures, is shown by the history or a case reported by Baker[3] of a patient suffering from cancerous stricture of the rectum, upon whom the operation of colotomy was performed in the usual way on the left side, without affording any relief. Death ensued on the following day, and the sigmoid flexure was discovered on the right side, the ascending colon being on the left.

Referring again to the etiology of the displacement, we may mention the theory of Von Baer, who attributes it to a deviation of the umbilical vesicle, which precedes in the order of development both the heart and liver. This normally occupies the median line of the body, inclining later a little to the right. Should this deviation, however, incline the vesicle to the left side, transposition of the viscera follows.

Rindfleisch accepts the displacement of the heart as the prime factor in the general transposition, and

[1] Berlin. klin. Woch., 1876.

[1] London Lancet, 1880, vol. i. p. 527.
[2] Gazette Obstetricale, 1878.
[3] British Medical Journal, 1880.

offers, as an explanation of its occurrence, the following theory:

Every column of liquid which flows through an elastic tube under strong pressure experiences a spiral torsion, and the same physical law may be held to apply to the blood-column, which, like other fluids under similar circumstances, communicates its spiral motion to the vessel containing it. The primitive heart-sac, therefore, acts like a twisted cylinder, and, under normal circumstances, the direction of the spiral turn is from left to right, so that the lower extremity of the spire, subsequently to become the apex of the heart, falls to the left. Should, however, the spiral turn assume the other direction, so that the apex falls to the right, the result will be a complete inversion of the non-symmetrical viscera, which are not formed until a subsequent period, and thus splanchnic inversion must follow.

This explanation, purely theoretical as it is, still leaves us in the dark as to the cause of the unnatural deviation of the spiral to the right side, nor is it likely that the solution will soon be forthcoming. Leaving aside the question of primary etiology, it certainly is more in accordance with the general harmony of nature to assume that one of the earliest developed organs should exercise such an influence over the remainder, as to regulate their position by its own, than that the anomaly should affect each of the misplaced organs individually. We know that the circulatory system is one of the first to show itself in the newly formed being; that in the chick, the contractions of the heart are apparent as early as the thirtieth hour of fœtal life (Kölliker), and it is very reasonable to suppose that an anomaly of position, affecting the heart in the early stages of its development, should not remain without influence on the other viscera, whose growth and development are largely dependent upon that very circulation, of which the heart constitutes so important a part.

A NEW MODE OF OPERATING FOR LACERATED PERINEUM.

BY A. H. GOELET, M.D.,
OF NEW YORK.

IT may not be out of place to preface the present article with a suggestion which will aid in the prevention of this accident. Much has been said and written on both the prevention and repair of this injury; but in looking over the literature of the subject, the claim of novelty seems justified in both instances.

When the thighs are flexed on the abdomen, as in the usual obstetric position, greater strain is put upon the perineum as the surrounding integument is put upon the stretch; and, conversely, when the thighs are extended the surrounding integument is relaxed, and with it the perineum; which can be demonstrated by the seat of one's breeches in assuming these positions. If this position be maintained from the moment the head impinges forcibly against the perineum until the whole of the fœtus is expelled, aided by well-directed traction backwards, by means of two fingers hooked in the posterior commissure of the vulva, in the intervals between the pains before the head is against the perineum, the great majority of lacerations which now occur will be prevented. I insist upon this position being maintained during the expulsion of the body of the child, because I believe as many lacerations are produced by the shoulders and hips as by the head, if not more. The experienced obstetrician will not need to be cautioned against a too rapid delivery of the body. I do not mean to say that the limbs should be completely straightened out, but extended, and with the knees only slightly flexed.

Should the accident occur, the immediate operation is strongly advocated. The surface is already denuded, there is little pain produced by the introduction of the sutures at this time, and usually no anæsthetic is required. If the sutures be applied in the way to be described, union will take place more readily, and there is little or no risk of septicæmia; there is better chance of restoring the tone and elasticity of the parts and the functions of the sphincter; and, lastly, the operation will be allowed now, but may be refused afterwards, to the detriment of the patient's future health.

In operating immediately after delivery, place the patient in a good light, on her back, with the knees well separated, and, using the silk-worm gut or Lister's carbolized catgut ligature for sutures, with a small, short needle commence introducing them on the vaginal surface, at the termination of the vaginal rent, tying each suture in the vagina as it is introduced, and in this way stitch the torn vaginal edges together up to the point where this line meets the perineal edge of the wound. Then, with interrupted sutures of the same kind or of silver wire, commencing at the bottom of the perineal surface of the wound (making the sutures superficial only) stitch these surfaces together, carefully coaptating the edges, and closing the wound completely at the top, where the two sets of sutures meet. I prefer the silk-worm gut for the internal sutures because they may be left in for an indefinite period, and do not irritate or become absorbed.

In the secondary operation, I agree with Dr. Emmet that the denudation is generally carried too far out, and the attempt is made to make more of a perineum than originally existed. Externally, the denudation should not be carried further than the line of cicatrix of the old perineum. Denude the outer border first, commencing on the left side of the vulva (right of operator), at the upper point of this line; denude a strip around to the same point on the opposite side, taking care to follow the line of cicatrix and not go too far out. As a guide to the limitation of denudation internally (as suggested by Dr. Emmet), hook up with the tenaculum the apex or crest of the rectocele at such a point that, when pulled forwards to the upper angles of the perineal cicatrix, puts the posterior wall of the vagina gently on the stretch. Then remove a strip of mucous membrane from the upper point of the external boundary line on the left side of the vulva to the point on the crest of the rectocele already deter-

mined upon, and from there to the same point on the right of the vulva. The island of mucous membrane surrounded by these lines is then removed.

The next step is the introduction of the sutures, and this is done in the same way as in the primary operation. The vaginal edges of the denuded surface are stitched together with interrupted superficial sutures of silk-worm gut tied in the vagina, taking care to coaptate the edges carefully. The feel to the finger as it is passed in, after these sutures are all tied, is that of the natural slope of the posterior vaginal wall.

There is now left the outer or perineal border to be united, and, after the wound has been thoroughly cleansed, this is done by interrupted superficial sutures from below upwards, using the silver wire or silk-worm gut, and inserting them near enough together to coaptate the edges thoroughly. Eight or ten vaginal sutures are usually required, and six or eight perineal.

The advantages of this over the old method of introducing the sutures are evident. The more complete coaptation of the edges of both vaginal and perineal surfaces possible by this method insures more prompt and perfect union, and prevents the urine or any discharge from the uterus from coming in contact with the raw surfaces, and the catheter need not be used, which is a great desideratum. The rectocele is turned in and covered up by bringing the vaginal edges together in this way, and the posterior vaginal wall is drawn upwards, narrowing the vaginal orifice to its original capacity. In the old method of introducing deep sutures of silver wire, the internal or vaginal edges are but imperfectly coaptated, and as the sutures are tightened the posterior vaginal wall is pulled downwards. This produces a puckering and thinning of the prospective perineum, and by compressing the bloodvessels interferes with the circulation and nutrition of the parts, and tends to prevent good union.

Since March, 1883, when I first operated in this way, I have had perfectly satisfactory results in every case.

The perineal sutures may be removed before the patient leaves the bed, but the vaginal sutures are left in for two or three weeks until the union is sufficiently strong to admit of the necessary amount of dilatation of the vaginal orifice to remove them.

The carbolized catgut sutures, if they do not soften too quickly, may answer for the vagina, and would not require to be removed.

243 WEST FIFTY-FOURTH STREET.

HOSPITAL NOTES.

ORANGE MEMORIAL HOSPITAL, ORANGE, N. J.

(Service of DR. WILLIAM PIERSON.)

BRONCHOCELE; EXCISION AND RECOVERY.

Reported by JAMES Y. SIMPSON, M.D., House Surgeon.

MARY F., æt. 20, native of Ireland. Her general health has always been good. Patient has had a swelling at the position of the thyroid gland for twelve years. It has remained small and given her no trouble until a year ago, when it gradually increased in size. During the last seven weeks it has grown very rapidly, and this growth has been accompanied by gradually increasing dyspnœa and dysphagia. The dyspnœa was most marked when she was lying down. She has always had a slight amount of pain in the tumor, but this pain has decidedly increased lately. She has been taking tincture of iodine internally, and having it applied to the skin over the tumor. None of her family have had tumors. Her mother died of consumption and her father of "dropsy."

Condition on Admission.—Admitted October 10, 1883. Patient is well nourished. The thyroid gland is very much enlarged, extending from just below the inferior maxilla to the upper border of the sternum, and laterally beyond the posterior borders of the sterno-mastoid muscles. Patient complains of daily headache, the pain being sharp and throbbing in the frontal region and at the vertex. She has tinnitus aurium, and sleeps very poorly, being often awakened by a smothering feeling. The tumor is the seat of a throbbing pain, and the limbs and joints are often affected in the same way. Patient is also troubled with a cough of five weeks' standing, which is worse at night. While coughing, she expectorates mucus freely, and before her admission to the hospital the sputa have at times been streaked with blood. Palpitation of the heart is marked. Her appetite is poor, and she often has nausea, vomiting, and gastralgia. Her bowels have moved but once in the last month, and this movement occurred two weeks ago. Her heart, lungs, and urine were carefully examined, but no trouble found with them.

Treatment.—Compound licorice powder was ordered to keep the bowels open, and a nutritious diet was given her.

October 12.—Her urine has to be drawn with a catheter. Appetite poor, but she sleeps well.

19th.—Her headache is very severe. She sleeps very little because of dyspnœa. The pain in her neck is quite severe. Her bowels have moved about every other day.

23d.—Symptoms remain about the same, but if any change has occurred, it is for the worse.

25th.—The patient is very anxious to be operated on, notwithstanding she has been told she may die on the table. A consultation was held by the Attending Staff, to decide if an operation was advisable. All the dangers connected with or liable to follow the operation, namely, hemorrhage during the operation, wounding of the pneumogastric or inferior laryngeal nerves, œdema of the glottis, septicæmia, degeneration of the tracheal structures, mental disturbances, and goitrous cachexia, were fully discussed.

It was decided that, in view of increasing headache, dysphagia, dyspnœa, pain—all evidences of injurious pressure on the bloodvessels, nerves, and trachea—it was best to perform thyroidectomy. All of the Staff were of the same opinion. All of the dangers were accurately detailed to the patient, and she still desired the removal of the tumor.

At 11 A.M. the patient was placed upon her back, and the mixture of Billroth—which we always use at this hospital—was administered until complete anæsthesia was produced. This anæsthetic mixture is composed of

ether three parts, chloroform and alcohol each one part.

We have the records of twenty-seven cases in which this was administered, in only two of which vomiting occurred. In all of these cases the patients became anæsthetized more rapidly and remained in a better condition while under its influence than we have ever seen them do with ether.

The operation was performed by Dr. William Pierson, assisted by Drs. Holmes, Chandler, Buttner, and Harvey, of the Attending Staff, and in the presence of a large number of other physicians.

The right anterior jugular vein was ligated with catgut, by passing an aneurism-needle beneath it. This vein was quite prominent as it passed over the tumor, and it was thought best to tie it before making the incisions. An incision was then made in the median line, commencing below the chin and terminating at the upper border of the sternum. Transverse incisions were then made on the sides, so as to intersect the longitudinal incision at right angles. This gave a large, crucial incision, which exposed the tumor. The superficial and deep fasciæ were then divided on a director, the bleeding vessels being secured by artery forceps, which were left in place, excepting some of the veins, which were tied in two places, and then divided between the ligatures. The capsule of the tumor, which was plainly seen, was separated from the surrounding tissues by the fingers. Next, the tumor was lifted from its bed, and the superior and inferior thyroid arteries tied separately, by passing an aneurism-needle beneath them. The capsule of the tumor was then opened, and the tumor enucleated by means of the fingers and scissors. The pedicle of the tumor was next tied in two parts by a double ligature passed through it. The tumor being then excised, the bleeding vessels were tied with catgut, excepting a few which were held by black silk. All of the ligatures—with the exception of those on the thyroid arteries and the pedicle, which were brought out at the extremities of the transverse incision, to assist drainage—were cut short and left in the wound.

The operation was done under strict antiseptic precautions—including the spray—and antiseptic dressings were applied to the wound. The hemorrhage during the operation was not very profuse. The patient did not rally very well from the operation until whiskey was given hypodermatically.

26th.—Morning temperature 99°, pulse 110. Patient is compelled to take nourishment by the rectum, being unable to retain it in her stomach. She coughs a great deal, but expectorates very little. Her urine is drawn with a catheter. Evening temperature 102.4°, pulse 188.

31st.—She has coughed and expectorated freely until to-day. Complains of very little pain, and sleeps and eats well. Dressings removed for the first time. The wound is discharging healthy pus from the drainage openings, and the greater portion of the flaps has healed by primary union. Temperature 98.5°, pulse 78. Can pass her urine.

November 3.—All the sutures but one were removed to-day. The wound is healing rapidly, but the discharge is still free.

7th.—Pulse and temperature normal. Appetite and sleep good. Has no cough. She has a slight amount of pain in the neck. At one angle the wound tends to gape, but is held together with salicylated isinglass-plaster. Discharge is still free.

14th.—Wound is healing rapidly. Discharge is much less.

27th.—Discharge very small in quantity.

December 1.—Allowed to go home. The wound has entirely healed, excepting at two points, where the granulations are very healthy. Patient's appetite is very good, and she sleeps well. Her general condition is excellent. Her cough has about disappeared, and she is feeling well in every respect, and has none of the old symptoms which were prominent before the removal of the tumor.

Report of Examination of Tumor, made by J. W. STICKLER, M.D. The tumor weighed one pound and a quarter. Its shape corresponded with that of a normal thyroid gland. The exterior was quite smooth, save at certain points where there was considerable connective tissue, which had bound the tumor to the skin. Its color was a very dark red. An incision into the interior of the mass on each side of the isthmus revealed numerous small round bodies which were semi-translucent and looked like globules of gelatine collected together. They gave to the surface a shiny and somewhat yellowish appearance. When compression was made, blood oozed from the cut vessels, and flowed quite freely.

Microscopic Examination.—There were some large alveoli having quite dense connective-tissue walls. Many of the alveoli were separated by irregularly placed cells, some of which were granular and deeply colored, while others were in appearance like gelatine. There were also numerous cells within the alveoli which had undergone colloid degeneration, while between them and in the interalveolar spaces there was considerable colloid material, which had a faintly striated appearance. At certain points there were large aggregations of altered cells without any definite arrangement. There were only a few bands of connective tissue, and they were most numerous near the capsule of the tumor. The capsule was not very thick, but was quite dense in structure. Arteries which were tortuous in their course were seen traversing the substance of the tumor.

MEDICAL PROGRESS.

SINUSES TREATED BY SPONGE-GRAFTING.—MR. W. WINSLOW HALL reports a case in which he treated four sinuses in the right forearm by sponge-grafting, other treatment having failed. A strip of fine sponge, one inch and a half by a quarter of an inch, had been soaked in dilute nitro-muriatic acid for twenty-four hours, then washed in water, soaked in carbolic solution for twenty-four hours, and washed a second time in water. This was tied to a piece of thin catgut threaded on a long needle. A director was thrust to the bottom of the sinus; the point of the needle was passed down to the end of the director, and was then brought through the skin. The director was withdrawn, and by pulling on the needle and catgut the sponge-strip was made to fill the sinus from top to bottom. The catgut thread was cut off at the level of the skin, and the wound was dressed with carbolic oil. In three months the arm was entirely well.—*Edinburgh Med. Journal*, March, 1884.

THE DIAGNOSTIC VALUE OF A SYSTOLIC MURMUR AFTER PARTIAL DIVISION OF AN ARTERY.—In the *St. Petersburg. Med. Wochenschrift*, January 7–19, 1884, PROF. EDWARD VAN WAHL has an interesting paper on this subject. He was led to the investigation of this subject from the satisfactory result of a case of gunshot wound of the thigh, in which the revelation by the stethoscope of a systolic murmur convinced him that the artery had been wounded, and induced him to proceed to tie a ligature on both the central and peripheral ends, as a means of preventing the usual development of such cases. A course of physical investigations by a student of Prof. Wahl, established the fact that when water was conducted through a rubber tube under a pressure of one hundred and ten millimetres of mercury, whether the pressure was constant or subject to pulsations, it always developed a blowing sound, recognizable by the stethoscope, wherever there existed a defect in the tube or a thin spot in its wall. Observation extended to animals whose arteries had been intentionally wounded, gave the same blowing systolic sound when the blood passed out of the opening in the vessel into the surrounding tissue. When the artery, however, was plugged by a thrombus, the sound was of course absent. The importance of this fact can scarcely be overestimated when we reflect how often it happens that the most important symptom of such arterial wounds, bleeding, stops for a while, only to develop later into blood-infiltration, with its consequent associate evils. If, however, the surgeon can satisfy himself that the artery has been wounded, a definite course of action would be immediately suggested. G. Fischer also observed the same phenomenon during the Franco-Prussian war in 1872. In these cases, however, the murmur was not, as it appears, observed until several days after the accident, with a view of obtaining information relative to a primary operation. He supplements his theoretical and historical consideration of the question by three cases: The first published by him in 1881; wound of soft parts, lower third of right thigh, arterial bleeding. One hour after the accident, stethoscope revealed loud systolic murmur, which was recognizable both upwards and downwards in the course of the artery. Ligature of both ends of the artery.

Second case, wound in right upper arm; arterial bleeding. Compression and cold application stopped the bleeding, but on account of pain and swelling he applied for assistance to Wahl's clinic, eight days after the accident. The systolic murmur was distinctly heard in the course of the artery, and the radial pulse was distinctly felt. The diagnosis of a partial division of the artery was made, associated with a commencing hæmatoma, but as no blood had shown itself for eight days, it was thought desirable to allow the wound, which was in a condition of suppuration, to heal before ligating the artery. Bleeding, however, without any apparent cause, set in, and the ligature of the two ends was effected on the following day.

Third case, shot in the left side beneath the clavicle. Profuse bleeding occurred, but stopped, without interference, in half an hour. One hour after the accident he was taken to Wahl's clinic. An extensive infiltration of blood existed in the region of the wound, which was exactly in the course of the subclavian artery. The radial, brachial, and axillary arteries were imperceptible. Severe pain in the fingers and arm. No cough, no vomiting of blood. There was no murmur to be heard with the stethoscope along the course of the artery. The diagnosis was complete division of the subclavian artery. The artery was exposed, and before the clots were removed, the ligatures were placed in situ. After securing the ligatures, the artery was found to have been severed, with the exception of a small piece of tissue about two millimetres wide. The mistakes in diagnosis in this case of a complete division of the artery were due to the absolute occlusion of the artery by means of a blood-clot. This occlusion, however, was only temporary, and had the operation not been undertaken at the time, it would have unquestionably been necessitated later, and under less favorable circumstances. These cases will not fail to show the value of the stethoscope in cases of wounds along the track of the large arteries.—*Weekly Medical Review*, March 1, 1884.

CHLOROFORM ASTIGMATISM.—M. DUBOIS has made an interesting communication to the Société de Biologie on the action of chloroform on the nutritive media of the eyeball and on the mammary gland. On examining the fundus of dogs narcotized with chloroform, he found its characters unusually difficult, and at times impossible, to distinguish. He observed, also, shadows upon it, which seemed to be produced by a particular alteration of the cornea. Irregular astigmatism was present, and was pronounced. By washing the ocular surface, he proved that these appearances did not depend on mucous flakes in front of the cornea. Similar and very marked astigmatism was observed in a man while under chloroform. This abnormality was found to disappear when sensibility returned. Diminution of refraction was particularly noted in one of the dogs. The tension of the globe was in these various cases also lowered. A comparative observation on the mammæ of a bitch appears to throw some light on the ocular phenomena. The breasts, which were turgid with milk at the commencement of anæsthesia, became flaccid and comparatively empty when the animal was fairly comatose. It may be suggested in accordance with these experiments that the peculiarities of refraction above detailed, like the alterations in the breast, are due to relief of tension in the fluid constituents of the organ affected, a condition which may easily occur during chloroform administration if the heart's action continue vigorous, seeing that every vascular channel then undergoes relaxation of its muscular fibre and consequent dilatation, and the escape of its contents is proportionally facilitated.—*Lancet*, February 16, 1884.

RUPTURE OF THE BLADDER, DISLOCATION OF THE KNEE, AND COMPOUND FRACTURE OF BOTH LOWER LIMBS.—MR. COTTENHAM FARMER reports the case of a boy, æt. 15 years, who was injured in the above-described manner by a railway train on July 4th. On passing a catheter, about two ounces of bloody urine were drawn off, but without relieving his desire. The catheter was thereupon tied in, under the full impression that grave injury, probably rupture, existed. Further examination was then made, chloroform having been given. There was a compound comminuted fracture of the lower third of the right leg, with loss of blood from the wound, and dislocation at the knee-joint. There

was also a compound and much comminuted fracture of the left leg.

The following treatment was at once adopted. Both wounds were covered with dry absorbent wool, and then the legs, to above the knee, were enveloped in Southall's pads. These were strengthened with soaked millboard splints, and the whole was firmly and evenly bandaged from the toes to above the knee-joints. The dislocation was then reduced. The boy was then carried to bed, and the legs placed in Lawrence's cradle-splints, and these were swung by ropes suspended from the ceiling, so as to insure to the limbs the freest possible movement. Opium was administered during the night, and poultices were applied to the abdomen.

On the 5th, the patient complained only of abdominal pain. There was great tenderness over the pubes. The urine passed through the catheter less tinged with blood. Next day the urine was clear; there was still suprapubic pain. On the 14th, the catheter was withdrawn, and he passed urine freely and with little pain. His legs had never given him the least discomfort; but Mr. Farmer, on the 14th instant, cut open the bandages and exposed the limb. He was astonished at its appearance. It looked quite natural; the wound had healed, nor was there even a trace of ecchymosis; the bones appeared firm and free from pain on pressure. The splints were reapplied on the 20th. Owing to a disagreeable smell, he opened and exposed the left leg, finding the following condition. The limb looked in every way healthy, but on its inner aspect, lying thoroughly exposed, and without the slightest signs of inflammatory action, was a large piece of the tibia (over two and a half inches in length). This he seized and lifted out of its bed, leaving a healthy looking wound, which progressed rapidly towards healing.

On August 16th, both legs were put up in plaster-of-Paris, and the patient left for home. He has since resumed his work.—*British Medical Journal*, March 5, 1884.

THE RECTUM ENDING IN THE MEMBRANOUS PORTION OF THE URETHRA.—DR. WILLIAM CRAIG reports the case of a child, the subject of this malformation. Two days after its birth, it having been discovered that the feces were passed through the urethra, an exploratory incision was made in the region of the anal depression, but no bowel was found. The child died about eighteen days after its birth. The autopsy showed the following condition. Externally the penis, testicles, and scrotum were normal in appearance and development. In the middle line of the perineum, instead of an anus, there was a depression or cul-de-sac of sufficient depth to admit the greater part of the distal phalanx of the little finger. The internal organs were exposed by a crucial incision and inspected *in situ*. Above the pelvis they were normal and healthy. The ascending and transverse colon contained some soft, semi-fluid feculent matter, bright yellow in color. The descending colon and the pelvic organs, including the penis, scrotum, and testicles, were removed *en masse*, and preserved for some weeks in chloral. They were afterwards transferred to strong spirits for a few days to harden. A section was made in the middle line of the penis, bladder, and lower part of the rectum. The bladder wall was slightly hypertrophied. There was no communication between the rectum and the bladder, but in front of the prostate gland the rectum entered the membranous portion of the urethra.—*Edinburgh Medical Journal*, March, 1884.

NEW SURGICAL NEEDLE AND THREAD.—DR. JOHN WARD COUSINS describes a very simple innovation, by which the ordinary steel needle is superseded by converting the end of the wire into a needle. The wire is cut into equal lengths, and each piece is separately reduced by drawing, with the exception of an inch or two at one extremity. The end is then converted into a convenient needle by pointing and burnishing.

This little invention offers several advantages in many surgical applications. The needle is always new and clean, and it can be used only for a limited number of sutures. It requires no preparation or threading, and the continuity of the needle and the ligature prevents the delay in introduction which often occurs with the ordinary needle from kinking or twisting at the eye. The point is always perfect, so that the pain of penetration is considerably reduced. Damaged needles are instruments of torture; and, even in these days of antiseptic surgery, I have found them carefully preserved in pocket-cases ready for any emergency. The chief purpose of this little invention is to prevent unnecessary pain, and to provide a needle with a perfect point, which can be used only in the introduction of eight or ten sutures, and then thrown away for ever. It is, moreover, especially adapted for the immediate surgery of the field of battle.

In his hands, nickelled steel-wire has proved an excellent metallic thread for closing skin-wounds; and, in consequence of its peculiar rigidity, it requires only one turn of the ligature to secure the edges in perfect apposition. It admits also of very easy removal, and this is a great advantage, for the "taking out of the thread is often a more painful operation than its introduction." The single turn of the wire should be made on one side of the wound, over the point of penetration; and then, on dividing the wire, close to the skin on the opposite side, the suture can be withdrawn with great facility.

The surgical needle and thread is manufactured by Messrs. Maw, Son & Thompson, in several convenient sizes, from nickelled steel and silver wire. The steel needles are made both straight and curved; the silver needles are tipped with steel, and flexible, so that they can be bent to any shape, and are thus especially adapted to many plastic operations. To protect the point from accidental injury, each needle is supplied with a shield of fine straw.—*British Medical Journal*, March 1, 1884.

RUPTURE OF LIGAMENTUM PATELLÆ, WITH TRANSVERSE FRACTURE OF THE PATELLA.—MR. M. GARDINER, of the Edinburgh Royal Infirmary, reports the case of a man, æt. 33 years, who, while falling, had tried to recover himself by a backward jerk, but had failed to do so. Trying to rise, he found he was not able, and when set on his legs he could neither walk nor stand without assistance.

On examination, a large, tolerably definite swelling was seen over the knee-cap. Touch proved this to be fluid. The movements of the joint were limited, extension being almost abolished. Fluctuation was also to

be felt on each side of the ligamentum patellæ, but the attachment of that structure could not be defined, and the finger felt as if it could pass right in between tibia and femur. Rupture of the ligament was therefore diagnosticated. Owing to the history, attention was next directed to the patella itself, the patient stating that he thought it was broken. On account of the swelling, the patella could scarcely be defined, and owing to the rupture of the ligament its superficial area did not seem increased. Fracture was therefore only suspected, but not absolutely diagnosticated.

The swelling of the knee and surrounding tissues increased, but finally subsided under the treatment adopted, and on the fourth day the joint had so far returned to its normal state as to allow of a thorough and perfect examination. This proved the suspected fracture to be real.

It is difficult at first sight to account for both rupture and fracture, but the probability is that the backward jerk described by patient ruptured the ligamentum, and that the blow on the floor fractured the patella.—*Edinburgh Medical Journal*, March, 1884.

OVARIOTOMY ON A CHILD EIGHT YEARS OLD.—DR. DUCHAMP reports a case of ovariotomy successfully performed on a child eight years of age. The left ovary and tube were removed. The pedicle was dropped into the abdominal cavity. The child recovered without accident.—*Archives de Tocologie*, January, 1884.

THE VIRUS OF HYDROPHOBIA.—M. PASTEUR made an interesting communication to the Paris Academy of Sciences, on February 26th, in relation to canine madness. He stated that the disease could be communicated to a dog by inoculation with fragments of marrow or of nerve taken from a mad dog. He also stated that he had rendered twenty dogs proof against the disease by inoculating them with a modified virus.—*British Medical Journal*, March 1, 1884.

RUPTURE OF THE AORTA DURING LABOR; POST-MORTEM DELIVERY.—The following case is reported from the Obstetrical Clinic at Helsingfors. A woman, æt. 38 years, pregnant with her third child, after taking a bath, came to the clinic complaining of cold. Her previous health had been good. Vaginal examination showed that the os was completely dilated. The head was in the first position. The uterine contractions were energetic. Ten minutes afterward the patient suddenly had a violent convulsion, went into a state of collapse, and ceased to breathe. It being evident that the woman was dead, the forceps were quickly applied and the child delivered.

An autopsy of the woman showed that the pericardium was distended with a large quantity of blood. The heart was fatty, and strongly contracted. A little above the sigmoid valves, was found a rupture of the aorta, involving the internal and middle coats. The aortic coat was very thin at the seat of rupture, and there was a small spot of atheroma on the ascending portion of the vessel. Heinricius, the reporter, thinks that the rupture was due to the increased blood-pressure caused by the energetic contractions of the uterus and the abdominal walls. He has not been able to find another case in literature of rupture of the aorta during labor.—*Archives de Tocologie*, January, 1884.

HYPODERMATIC INJECTIONS OF CALOMEL IN THE TREATMENT OF SYPHILIS.—It being granted, says DR. LOUIS JULLIEN in a recent note on this subject, that the hypodermatic treatment of syphilis is the preferable method, what mercurial preparation shall we use? While Lewin, of Berlin, and the majority of practitioners have expressed a preference for soluble and easily absorbed preparations (the bichloride and the peptonate of mercury), Scarenzio has recommended the use of calomel, in suspension, as a very manageable preparation. The first experiments of Scarenzio were made in 1864. Now, twenty years after, his method has received new attention.

The formula first used by Scarenzio was:

Calomel, ...	gr. iij–ivss.
Glycerine, ...	♏ xxv.

Smirnoff modified this formula to one part, by weight, of calomel, to ten parts, by weight, of glycerine. At each injection about gr. iij of alcohol were thrown into the cellular tissue; but in feeble and anæmic women only about gr. j was used. Scarenzio still further modified this form by using mucilage: calomel, gr. ¾–ij; powdered gum Arabic, gr. ¾; distilled water, ♏ xv. The needle of the syringe used should measure at least one inch long. This is important, as in women especially, and in men sometimes, a small abscess will form at the end of the track made by the needle, and the inflammation extend up through it.

As to the choice of locality for making the injection, the posterior part of the upper arm is preferable, then the back and the back part of the shoulders. Smirnoff says: 1. The substance injected *between* the skin and the muscles is not exposed to pressure. 2. The integument over the buttocks is so thick and firm that, even if the injection causes inflammation, the small quantity of pus formed will not reach the surface, but will be absorbed. After having chosen some point at which to make the injection, the skin is pinched up and the needle passed under it, but not into the muscular structures.

The effect of the injections, in the treatment of the secondary manifestations, is very quickly seen. All who have used the method of Scarenzio, declare that the period of illness for each syphilitic has been greatly diminished by it. The promptness with which the secondary eruption disappears is greater than with any other remedy.

The action of calomel injections is, according to Smirnoff, much more energetic than that of other remedies. Smirnoff also insists upon the value of this method in the manifestations of the tertiary stage. Pirocchi and Porlezza have already cited the case of gummous syphilis of the brain cured by two injections, and several others of periostitis and osteoscopic pains. Calomel injections are well borne by young children. After the injection of gr. $\frac{6}{13}$, $\frac{7}{11}$, or $\frac{9}{10}$, they do not appear to suffer, and become quiet. In cases of older children injections of from gr. $\frac{9}{10}$ to iij are sufficient to cause the complete disappearance of all manifestations, whether secondary or tertiary.

As to the number of injections, Scarenzio's first views have been proved to be well founded. Gr. vj of calomel are ordinarily sufficient to cause all syphilitic accidents to disappear. This represents four injections of gr. iss,

given two at a time, the interval between the first and second two being three weeks. These four injections will replace all the arsenal of pills, frictions, washes, etc., and the patient only needs the physician once in three weeks.—*Annales de Dermat. et Syphil.*, February, 1884.

CHLOROFORMIC ALBUMINURIA.—At the meeting of the Académie de Médecine, on February 12, M. BOUCHARD read a paper on "Experimental Study of Death after Subcutaneous Injections of Chloroform and Chloroformic Albuminuria." In 1876, M. Bouchard injected ℥xv of chloroform into a rabbit, causing death in about twenty-five minutes. In cases of this kind an intense albuminuria is caused, often accompanied by hæmaturia. This albuminuria may last for twenty-four hours if death does not take place.

Recently M. Bouchard has performed a series of experiments on rabbits, in order to study the subject more fully. If one injects ℥xij of chloroform into the rabbit, albuminuria always follows, and death takes place in three out of four cases. If ℥vij are injected, three out of four cases die; if only ℥iv are injected, about one-half of the cases die; and if only ℥j–iij are injected, death does not occur unless the injection is repeated.

In these cases, dogs also having been used, M. Bouchard has never, at least in those which survived, seen any evidence of gangrene or phlegmon at the point of injection. Histological examination of the kidneys showed congestion and extravasation of blood into the canaliculi, without epithelial lesions. He has been asked whether the albuminuria and death may not be the result of reflex action produced by irritation of the nerves at the seat of the injection. Having divided the sciatic and crural nerves on the same side, he injected the chloroform into the cicatrix at the seat of the wound. The usual results followed. He therefore rejects the reflex theory.

All his experiments go to show that these accidents depend upon poisoning, upon the absorption of the chloroform. This view is confirmed by the fact that the inhalation of air mixed with chloroform vapor causes the intense albuminuria and hæmaturia, although the amount inhaled may be so small that neither anæsthesia nor sleep is produced. But the albuminuria caused by the inhalation is not followed by death; and, on the other hand, the intravenous injection of ℥v of chloroform, dissolved in alcoholized water, though it caused immediate and profound narcosis, with albuminuria and hæmaturia, death did not follow.

This albuminuria, then, seems to depend upon poisoning, whether the poison acts directly upon the elements of the kidneys at the time of elimination, or whether, being carried into the nerve-centres by the blood, it there influences the parts presiding over the nutrition and circulation of the kidney. But why the injections should cause death, and the inhalations and intravenous injections do not, is still unknown.—*Le Progrès Méd.*, February 16, 1884.

RESECTION OF THE STOMACH.—DR. ZAMBONI reports a case of resection of the stomach for carcinoma of the pylorus. The tumor, limited to the pyloric region, was as large as a lemon. A few omental glands and a portion of the vena portæ were the only other structures affected. The patient was in an extremely unfavorable state at the time of the operation. The abdomen was opened by a long median incision. The resected portion included a part of the greater curvature, and the pyloric portion of the stomach. The operation was strictly antiseptic, but the patient died on the seventh day of purulent peritonitis. This is the fifth resection of the stomach performed in Italy, all the cases having terminated fatally.—*Gazz. degli Ospitali*, Feb. 27, 1884.

THERAPEUTICS OF THE LOCHIA IN PUERPERAL AFFECTIONS.—DR. G. EUSTACHE, in a recent paper in the *Journal des Sciences Médicales de Lille*, 1884, p. 1, says that the therapeutics of the lochia consist in—

1. Avoiding the retention and stoppage of the flow in the uterus, or vagina, or at the vulva. 2. Modifying, by topical applications of liquids, the state of these surfaces, if they are injured. 3. Also modifying secondarily, by the same means, the offensive qualities of the discharge.

From this it is evident that these means should be employed whenever there is any lesion of the genital passages, especially in metritis; and they should be employed as often as possible before the morbid process has invaded the deeper parts, the tubes, ovaries, and peritoneum. To fulfil these indications, the means are: 1. *Ergot*, which, given in small doses, two or three times a day, prevents the retention of the lochia; 2. *Intravaginal injections*, for which he preferably uses a solution of carbolic acid (1 to 100). The irrigations are made morning and evening, one or two being used until the liquid returns clear. 3. *Intrauterine injections*, which should only be used when there are symptoms of metritis. For these Dr. Eustache uses the carbolic solution (1 to 100), at 86° to 89° Fah., and an irrigator holding a quart, to the tube of which he fastens a rubber tube, or an ordinary double-current tube. The tube is carried into the uterus to the depth of two or three inches. The irrigation should occupy from five to ten minutes.—*Revue Méd. Franç. et Etrang.*, February 16, 1884.

LAPARO-HYSTEROTOMY.—This operation was performed on February 6, by DR. LUIGI CASATI, in the hospital at Forli, upon a woman, æt. 35 years, for carcinoma of the uterus and ovaries. The operation lasted forty minutes. On the fifth day the patient was in excellent condition.—*Gazz. degli Ospitali*, February 20, 1884.

EXTRAUTERINE PREGNANCY; LAPAROTOMY.—At the meeting of the Académie de Médicine, on December 11, 1883, M. Lannelongue presented two photographs representing two infants removed, by laparotomy, from two women, the subjects of extrauterine pregnancy. The operations were performed by M. LUCAS-CHAMPIONNIÈRE, at the Tenon Hospital, on June 6 and August 3, 1883. The first photograph was that of a male child, seventeen and six-tenths inches long, and weighing three and three-quarter pounds. On opening the abdomen of the mother, tne child was found in a sea of pus, and already considerably decomposed. This was at the fifth month of pregnancy.

In the second case, the operation was performed at the twenty-sixth month. The fœtus was adherent to the wall of the cyst, and had to be extracted piecemeal. The women recovered without accident.—*Archives de Tocologie*, January, 1884.

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ANTISEPTIC SURGERY IN MILITARY PRACTICE.

THE address of SURGEON-MAJOR GODWIN on "Antiseptic Surgery in its Application to Field-Service," delivered before the Woolwich Military Medical Society, and published in the *British Medical Journal*, February 23, 1884, elicited a most interesting discussion, in which a number of civil practitioners took part, and which may profitably be noticed in connection with a similar discussion which appeared in the *Verhandlungen der Deutscher Naturforscher und Aerzte in Freiburg* Versammlung 56, 1883.

Both the English and German surgeons were agreed, first, that unless in case of great emergency, as, for example, one of hemorrhage, or severe compound fracture, the wound must not be fingered, probed, or manipulated by the surgeons in the front; and, secondly, that the surgeons in the advance line should limit themselves to provisional protection and occlusion of the wound with some form of antiseptic dressing, which, for obvious reasons, must be cheap, simple, portable, and of small bulk, and, if possible, carried by the soldier himself. The first dressings having been applied, further interference in ordinary cases would not be required. In more severe ones, however, the wound would receive definite and more elaborate attention at the field-hospital.

As might naturally be expected, various materials were recommended for the "first field-dressing," but the general sentiment appeared to be in favor of corrosive sublimate and iodoform. Sir Joseph Lister, Maas, and Beck spoke in the highest terms of the bichloride of mercury; and it may interest those surgeons who have not adopted antiseptic precautions in their operations, to learn that the spray and carbolic acid do not constitute so-called Listerism. In regard to the former, Sir Joseph says, "It would not at all break my heart if I were told that I should never be allowed to use the spray again in my life; I am satisfied I could, by other means, get essentially the same results." Discarding, then, the spray, as not being essential to success, and preferring corrosive sublimate to carbolic acid on account of the great volatility of the latter, he thought that rags steeped in a one to one thousand watery solution with glycerine—which renders the sublimate very soluble—and hung up to dry, would constitute a dressing which was easily prepared, must prove efficacious, and would last for any length of time. Despite his faith in corrosive sublimate, he, however, was of the opinion that iodoform, which combines the advantages of being not bulky, portable, and little soluble in the discharges of a wound, was the best agent for the first dressing; and this view was shared by Sir William MacCormac, Deputy Surgeon-General Marston, Lesser, and Kuester. The powder may, as suggested by Lesser, be carried by the soldier in an empty cartridge, around which are wound a bandage, about four yards long, a piece of absorbent lint or cotton, and a three-cornered handkerchief.

While iodoform does possess undoubted merits, it is not an antiseptic in the true sense of the term. Hence, we think that it should be employed as an accessory to a corrosive sublimate dressing. If the preparation of the first dressing were left to us, we would recommend the following, which would make a package that could be readily sewed in the flap or breast of the soldier's coat. A pad of absorbent lint or cotton and a bandage four yards long, which had been soaked in a solution of one part of corrosive sublimate, five parts of common salt, ten parts of glycerine, and one thousand parts of water, and subsequently dried, along with forty grains of iodoform wrapped in waxed paper or rubber tissue, and a triangular bandage, the whole being contained in an impermeable wrap to protect it from dirt and wet. The wound having been sprinkled with the powder, the corrosive pad is secured over it with the bandage, and the handkerchief used as a sling, in the case of injury to an arm.

Prepared in the way mentioned, the chloride of sodium not only promotes the solubility of the mercurial salt, but renders it stable, by preventing its conversion into calomel. Unless this precaution be taken, the ordinary solution, with the addition of a small amount of glycerine, cannot be relied upon to last any length of time, as is asserted by Sir Joseph Lister.

If the dressing is not sewed in the soldier's uniform, it should not be entrusted to him, since Beck states that, in 1870-71, when no such provision was made for its security, all save two soldiers had thrown it away, and Prof. Longmore declares that, in Egypt, the sanitary instructions issued required the dressing to be carried in the left-hand pocket of the trousers, when a large number of the trousers had only one pocket, and that was on the right side and usually too small to contain the packet.

BLEEDING IN PUERPERAL ECLAMPSIA.

IN a little volume just issued, DR. E. MICHENER urges bloodletting in the treatment of puerperal eclampsia. He has collected all the cases of this disease which have occurred during the present century in an area of about two hundred square miles, Avondale, Chester County, Pa., being the centre of this area. The number of cases is forty-four; but some are reported by non-professional persons, and, therefore, furnish a doubtful basis for comparison and conclusions.

One fact, clearly established by Dr. Michener's statistics, is that eclampsia is much more frequent in recent years, and, like Peter, of Paris, he makes the general disuse of bleeding in pregnancy the chief cause of this greater frequency. Dr. Michener does not seem to have given any consideration to the increase of population as in part explaining the greater number of eclamptic patients.

In one of the forty-four cases collected, the treatment was not known, but as it occurred early in the century, it is quite as probable that depletion was used as that it was not, and this case was fatal; three of them were treated by irregulars, and these cases also died; of course their treatment is not known, and all, therefore, may be thrown aside so far as teaching anything is concerned. Then six are recorded in which bleeding was not done, and five recovered, that is a little over eighty-three per cent. There remain then thirty-four patients, all of whom were bled, and of these twenty-six recovered, and eight died; that is, the mortality was somewhat over twenty-three per cent. But re-examining the record, we find that four did not have, but were only threatened with convulsions, and, therefore, they should not be included. We have then thirty cases of eclampsia treated by bloodletting, and eight of the patients die; that is, the mortality is 26.66 per cent., a result which, compared with that following the non-depletion, is not remarkably encouraging. Such is the brute logic of the figures Dr. Michener has given—an advantage of ten per cent. in favor of not bleeding.

But let us be just to Dr. Michener, for the cases in which bleeding was not done, and which recovered, were mild attacks. And this brings us face to face with the great difficulty in deducing conclusive truths in therapeutics, even from a large number of cases. No two patients are precisely alike in themselves, or in their diseases, and he is the wisest doctor who selects and adapts his remedies to the individual, rather than fixes an unchanging law of treatment for a disease. Bloodletting in the majority of cases of eclampsia is an invaluable remedy, a remedy more likely to be too seldom than too frequently used in these days, but all eclamptic patients are not to be bled, nor all to be bled the same amount. The recent investigations of Charpentier show that more cases recover after moderate, than after free depletion.

Further, the practitioner should not forget that in some cases the anæsthetic is better than the antiphlogistic treatment, and that in all cases in which the latter is pursued the former usefully supplements it. The results from chloroform which Braun had, sixteen cases, all recovering; and those of Chailly, seventeen recoveries out of nineteen; and of Triaire, five out of five; and those which Froger has collected, quoted by Charpentier, only four per cent. of deaths when chloral alone was used, ought to make one cautious in declaring that bleeding is the only salvation for the eclamptic.

THE STREET-CLEANING PROBLEM.

THE cost of cleaning the streets and removing the refuse of a city is necessarily expensive, since the material removed possesses but trifling commercial value, and there is, therefore, little inducement to engage in the work of its utilization. The custom that prevails in American cities of spreading out the population over wide areas, causes the extent of street surface to be large in proportion to the population, and the expense of its care relatively great. The generally inferior quality of street paving is another impediment to thorough work, and a cause of the expensiveness of satisfactory cleansing. These are some of the reasons put forth for the inefficiency of street-cleaning operations in most of our cities; but they are evasive, unsatisfactory, and inadmissible.

Clean streets, at whatever legitimate cost, are imperatively demanded in the interests of the health, comfort, and convenience of the people; and no plea or excuse, or any obstacle whatsoever, can safely be permitted to antagonize successfully this important sanitary requirement. There is nothing intricate, puzzling, nor impracticable in the business of street-cleaning; but judging from the loud complaints that have filled the press of the country the past winter, it would seem to be a problem more difficult of solution than the perplexing question of the pacification of the Soudan.

It is a short-sighted policy that permits the streets of a city to be defiled with filth accumulated for months. The annoyance to citizens, the damage to apparel, equipages, and merchandise, not to speak of the far more serious result of injury to health, are consequences which could easily and profitably be averted, if the authorities were capable, honest, and willing, and fully realized the weight of responsibility resting upon them. The season of mud is well-nigh passed, but another, and still more serious and dangerous annoyance, awaits the public. With the advent of spring, under the influence of clear skies and winds, the filthy compound that defiles the public ways and places, will become dried and converted into dust, and be carried in clouds hither and yon, making the atmosphere stifling, and polluting everything with which it comes in contact.

Filth produces and aggravates disease. In the form of dust it is particularly obnoxious. Recent scientific investigations have rendered it probable that the germs of disease are conveyed by its agency. In connection with experimental investigations relating to the etiology of malarial fevers, Dr. Sternberg has observed the fact, that, during the summer months, the mud in the gutters of New Orleans possesses an extraordinary degree of virulence, due to the presence of pathogenetic varieties of bacteria. He remarks, "the more I study this subject, the more probable it seems to me that in this direction lies the explanation of many problems which have puzzled epidemiologists, and that the sanitarians are right in fighting filth as a prime factor in the production of epidemics—a factor of which the *rôle* is easily understood if this view is correct."

In this connection, we cannot refrain from quoting the timely remarks of one of our best scientists, on this homely question. "When we reflect," he writes, "that this is the dried and pulverized dirt and filth of our streets, derived from all kinds of refuse matter, its dangerous qualities may be suspected if they are not clearly obvious. Conveyed by the winds, it is diffused everywhere, and settles upon and adheres to everything. We inhale it, drink it, and eat it with our food. A speck of mud on our bread excites disgust; but who minds the same thing when it is nothing but a little dust? If our food just brought from the market or the provision store be examined with the microscope, it is found to teem with particles of dust, consisting of fine sand, bits of hay and straw, filaments of cotton from old paper and rags, wood fibres, hairs and scurf scales of man and beast, starch grains, spores, etc. Recent investigations render it probable that dust contains the germs of decomposition, gangrene, and contagious diseases."

It is not a fastidious sentiment that clamors for the rigid cleanliness of our streets and public places, but an instinctive disgust for what is offensive and vile; a natural aversion and educated antagonism to that which may be disease-breeding and pestilential, and, therefore, harmful.

In the light of recent knowledge, the responsibility of those charged with the duty of maintaining public cleanliness is more than ever serious, and no effort should be spared in compelling its fullest realization. An indictment at law in the name of the people, against the recalcitrant agents of the city, for maintaining a public nuisance, would establish a useful precedent, and go far towards inaugurating a reform in this badly administered branch of the public service.

ANTIVIVISECTION AGITATION.

IN its editorial of March 8, 1884, *The Philadelphia Medical Times* says, in reply to our recent comments on its position as regards the use of animals in research: "That vivisection conducted in a proper manner is recognized by medical science as a legitimate and necessary means of advancing research, and of adding to our store of knowledge." As to this there can be no difference of sentiment. It is legitimate and needful. The society, the *Times* speaks of and for, desires, it says, "to restrict this practice within proper limits." It would be well then, as a preliminary, to show that here in Pennsylvania it has not been so restricted by the kindliness and common sense of the very few persons who in our time have used it.

In fact we deny the cruelty charge which is made by the *Times* when it quotes the anonymous "many who have declared that vivisection is overdone, and is *greatly abused* in this country." We ourselves speak with unusual knowledge when we reply that this allegation is not true. Pray who are the "many?"

But let us agree, for argumentative advance, that restriction is desirable. Have we any now? In the University of Pennsylvania the laboratories for physiology are used by four persons, or at most five, at somewhat long intervals. Students are never alone in the laboratory. Third course students are not permitted to conduct researches and employ animals in aid of these, without the most careful supervision. If they wish to engage in such pursuits, they must apply to the Professor or his Demonstrator, and show that the object in view is desirable, and that they are competent. Printed rules and the constant custom of the laboratory enjoin the use of anæsthetics. Now what more could be desired? In fact the University discourages physiological work by students, and it is therefore uncommon. More has been done by such workers, and some of it

very good work, in the pathological rooms. But this involves nothing worse than inoculations. The restriction is here, also, in wise and thoughtful hands. Can we get anything better by inviting some kindly sentimentalists to legislate for us? To do so is to admit that we have done wrong and need other masters than our consciences.

The *Times* "is authoritatively informed that the *present* movement does not seek to abolish or to interfere with scientific experimentation further than to *urge* that it be done in as humane a manner as possible."[1] If this be all, we do not object much to being urged to do what we now do. If we are asked to go beyond being urged, we are met with three distinct difficulties. If the present movement should result in a Restriction Act, surely no one believes its advocates would be willing to leave its restrictive capacities to the great medical bodies who now control it, or would exclude laymen—or worse, laywomen—in which case we should be in the cheerful situation of our English friends. But if the "*present*" movement be only for restriction, and of course we admit the honesty of the position assumed by the *Times*, who will assure us against a new campaign in the interests of total abolition? "*Anti*" covers a good deal. With the exception of a few gentlemen not profoundly interested, the Society now engaged in a needless task does not consist of material such as invites belief in its moderation. "Abuse and ridicule do not convince," says the *Times*. No, that is true; but what shall we say of the Whitechapel alleys, placarded with sensation chromos by the English Society with aims like those we are now criticising? If Magendie may be quoted on one side, surely these examples of sentiment run mad to brutality may be quoted by us as a reply and a warning.

The *Times* passes lightly over the calumnies with which some prominent men have suffered here among us, but by them at least they are not forgotten; and so far, here and abroad, the abuse has come in most copiously from the antivivisection side, and, as a rule, has been—in this city at least—endured in silence.

To sum up:

We believe that vivisection is not abused in America.

We know that it is sufficiently restricted by the great medical schools which now control it.

We fear to accept legal restraint, not knowing who will administer it. We dread the fate of the British physiologists.

We do not believe the American Society will pause at restraint any more than has been the case in England.

[1] Italics are ours.

ACUTE ARTERITIS CONSECUTIVE TO TYPHOID FEVER.

DR. BARIÉ calls attention, in the *Revue de Médecine*, Nos. 1 and 2, 1884, to acute inflammation of the arteries as a sequel of typhoid fever, and his paper constitutes a valuable supplement to Dr. Keen's Toner Lecture "On the Surgical Complications and Sequels of the Continued Fevers," delivered in 1877. Confining his investigations to the larger arterial trunks, the author finds that the affection is nearly always met with in the lower extremities, the vessels implicated, in the order of their frequency, being the posterior tibial, femoral, dorsal artery of the foot, popliteal, and anterior tibial. As a rule, unilateral and localized on the right side, it appears during convalescence, or when the patient leaves his bed, and is witnessed as frequently after the lighter as after the more severe type of the disease.

From the stand-points of anatomical lesions, clinical evolution, and termination, two varieties of the affection may be distinguished, namely, acute obliterating arteritis and acute parietal arteritis. The first is characterized by embryonal infiltration of all the tunics, with the formation of a secondary thrombus, and invariably terminates in dry gangrene; while the second variety is merely an inflammation without such a clot, and always terminates in recovery without gangrene.

Dr. Barié believes that the two principal factors concerned in the pathogenesis of the affection are, first, local and permanent irritation of the walls of the arteries induced by a special infectious germ, the bacillus typhosus; and, secondly, profound disturbances of vaso-motor innervation, or vaso-motor spasm. With regard to the symptomatology and treatment, there are no new additions to the observations of Dr. Keen.

In connection with this subject it may be mentioned that Vulpian records, in No. 2 of the same journal, an interesting case of right hemiplegia and aphasia, due to thrombosis of the left Sylvian artery during the course of typhoid fever. Examples of a similar nature are recorded by Dr. Landouzky, in his *Thèse d'Agrégation* "Des Paralysies dans les Maladies Aiguës," 1880.

ANÆSTHESIA BY THE MIXED METHOD.

WE have several times called the attention of our readers to the mode of producing the anæsthetic state by the subcutaneous administration of morphine and atropine, followed by the inhalation of chloroform. This "mixed method" has been largely practised by M. Aubert, of Lyons. He has recently addressed a note to the Society of Biology of Paris, reaffirming the advantages of this method. He finds it safer than the administration

of the anæsthetic by itself, but it possesses other important advantages: the stage of excitement is very slight; profound anæsthesia is obtained in about three minutes; vomiting very rarely occurs, either during the anæsthesia or subsequently, and the whole process of inhalation is greatly facilitated.

The method of Aubert has been submitted to the crucial test of experiment by MM. Paul Bert, Morat, and Dastre, who find that the clinical observations are entirely supported by trials on animals. In view of these facts, and the powerful advocacy of Bernard, Nussbaum, and Aubert, abroad, William Warren Greene, Reeve, and others in this country, it is surprising that so little attention has been paid to the method by practical surgeons.

REVIEWS.

THE FIELD OF DISEASE; A BOOK OF PREVENTIVE MEDICINE. By BENJAMIN WARD RICHARDSON, M.D., LL.D., F.R.S., Fellow of the Royal College of Physicians, etc. 8vo. pp. 737. Philadelphia: Henry C. Lea's Son & Co., 1884.

THE author of this book is already well known on this side of the Atlantic through his numerous and able contributions to medical literature, and by his writings upon the more prominent topics of public health and hygiene. The announcement of a treatise by him on the comprehensive subject of preventive medicine has been received with great satisfaction, not only on account of his eminent qualifications for the undertaking, but also by reason of the need of a standard work of this character.

The volume before us, a handsome octavo of nearly eight hundred pages, is a classical production, comprehensive in scope, logical in arrangement, rich in material, sound in doctrine, and instructive in its teachings. Though intended primarily for "the intelligent reading public," the physician will find it to his advantage to consult freely its pages.

The work is divided into three books, which contain a description of natural diseases, acquired diseases, and the origins, causes, and preventions of disease.

In the first book, the author has presented a carefully written description of the general diseases affecting mankind, taking as a basis the classification adopted by the Royal College of Physicians. To render this work intelligible to the general reader, a preliminary chapter has been inserted upon what may be called the attendant conditions of disease, such as fever, inflammation, congestion, etc. For the same reason, a physiological outline of the systems of organs of the body has been prefixed to the description of local diseases. An interesting chapter on diseases from natural accidents concludes the first book.

In the second book, upon acquired diseases, a classification according to causes has been adopted, because it is the more natural course to pursue. The affections have therefore been arranged under the following heads: 1. Diseases induced or acquired from inorganic and organic poisons. 2. Diseases induced or acquired from physical agencies, mechanical and general. 3. Diseases induced or acquired from mental agencies, moral, emotional, and habitual.

The third book, containing a practical summary of the origins, causes, and preventions of disease, is the most useful part of the treatise, because of its practical bearing upon the affairs of every-day life. Only the causes and preventions of the more common diseases, such as yield the ordinary mortalities, are considered, under the belief that "if we could discover the means of preventing these diseases, the whole field of disease would be so reduced there would be little left to be done except to maintain, systematically, the methods of prevention in all their integrity."

The origins and causes of disease are clearly and intelligently discussed under the following heads: 1. Congenital, hereditary, and constitutional origins and causes. 2. Atmospherical or meteorological origins and causes. 3. Parasitical origins and causes. 4. Zymotic origins and causes. 5. Accidental origins and causes. 6. Social and psychical origins and causes. 7. Senile degenerative origins and causes.

In the part devoted to the consideration of the preventions of disease, the subject is discussed in connection with the varieties of origins and causes of disease, because preventive measures naturally group themselves in position by the side of causes. The three grand agencies concerned in the enumeration of measures of prevention are the *personal*, the *municipal* or *local*, and the *central* or *governmental*. In prescribing the rules applicable to the different groups of disease, a classification, according to their agencies, has been uniformly observed. This systematic arrangement is still further amplified by the introduction of subheads, a plan which is exceedingly serviceable for ready reference. The material contained in the concluding chapter, on the preventions of disease, has been most carefully selected, and accurately represents the best knowledge on the subject.

This book, taken as a whole, is the best of its kind that has ever been published. It is scientific, methodical, and practical. The time of its publication is most opportune. The *people* have never taken so great an interest in health questions as at the present time; and, as this work is intended for the public, its usefulness is insured. The physician will also be profited by consulting its pages.

The work of the publishers leaves nothing to be desired.

TRAITÉ DES FIÈVRES, BILIEUSES ET TYPHIQUES DES PAYS CHAUDS. Par le DR. A. CORRE. Pp. 567. Paris: 1883.

IN this interesting work we have an excellent account of the fevers which prevail in hot countries. The author adheres to the nomenclature familiar to the practitioner of the South and West. Thus he recognizes a "gastric" and a "bilious" fever. These are different from malarial fevers, which form a distinct group. He gives a very full and excellent description of hemorrhagic malarial fever, and a still more elaborate account of the typho-malarial form. Yellow fever receives careful and thorough treatment, and the section on typhoid completes the work.

The strongest part of this treatise is the clinical. Each form of fever is carefully delineated, and its clinical characteristics well defined. The pathological descriptions are less happy and less accurate, although fairly representing the present aspect of the subject. Take it all in all, this is a treatise which may be fairly regarded as excellent, and which can be recommended as worthy of perusal by anyone desiring information on the subject of fevers.

SOCIETY PROCEEDINGS.

OBSTETRICAL SOCIETY OF PHILADELPHIA.

Stated Meeting, March 6, 1884.

THE PRESIDENT R. A. CLEEMANN, M.D., IN THE CHAIR.

DR. PACKARD demonstrated to the Society a new method of applying

AXIS TRACTION

to any ordinary obstetric forceps. The device consisted of two steel hooks arranged to catch in the fenestræ of the blades of the forceps, and terminating in rings through which a wooden handle is to be passed. The handles of the forceps are to be lashed together.

DR. SMITH remarked that Dr. Tarnier's first suggestion was to pass a cord through holes drilled through a widened portion of the blades, at the point at which handles are now attached. The hooks exhibited by Dr. Packard did not draw from the right point, and he thought there would be difficulty in adapting them when the head was high up.

DR. GOODELL thought that Tarnier was anticipated in the cord attachment by another French physician.

DR. B. F. BAER read a paper on

THE SIGNIFICANCE OF METRORRHAGIA ABOUT AND AFTER THE MENOPAUSE.

Metrorrhagia recurring about the menopause is as likely to be the result of disease of the uterus or its appendages as it is at any period previous to that time. The popular belief that floodings at the change of life are physiological, often results in harm. That the blood-loss is depuratory or critical, and that it protects the vital organs from injurious congestion, is erroneous. Where health exists the cessation of menstruation will be attended by no more aberration of function than is seen in its establishment. An analysis of twenty-two hundred cases treated in hospital and private practice, shows that nearly the same number of women sought advice during the establishment and the decline of menstruation, and it further shows that the numbers rapidly increase as the period of greatest fecundity is reached, and decline after it is past.

Epithelioma of the cervix may result from injury of that organ, but also requires some peculiarity in the structure of the tissues, which renders them susceptible to an induced dyscrasia. When a woman in the midst of the fertile period suddenly ceases to bear children, there is often some local cause for it. There is some causative relation between acquired sterility and cancer. It is safer to believe the disease of local origin, for we will then endeavor to discover and remove all sources of irritation and possibly prevent its development. Detailed histories of a number of cases are given to illustrate the truth of the positions assumed. Where the menopause is retarded beyond the usual period, the cause can often be found in some diseased condition connected with the sexual system, and as a rule it is an old standing trouble. When metrorrhagia recurs after the menopause has been fully established, it is almost invariably the result of a pathological change in the tissues of the uterus.

DR. GOODELL agreed almost wholly with what Dr. Baer had said; he thought the dangers of the menopause much overrated. Cancer and fibroids of the uterus occur more frequently at that age than any other, and have caused the popular dread. Although hemorrhage is always pathological, its cause cannot always be discovered, and in this dodging period serious hemorrhage may occur and no dangerous condition exist. He would like to believe that cancerous growths had a benign incipiency, but cannot go so far. The microscopists make many mistakes in ascribing malignancy to growths removed from the uterus. Dr. Goodell then gave a number of cases in which experienced microscopists had given prognosis of early fatal termination, based upon the cell formation of growths removed from the uterus, but these cases had recovered and now showed no evidence of any diseased condition. With regard to the small proportion of cancerous growths following laceration of the cervix uteri, the Doctor called attention to the large number of Irishmen using clay pipes, and the small number of lip-cancers, and yet it is universally acknowledged that the use of a clay pipe is the principal cause of such growths. Bloodletting is practised very freely in Turkey and the East; and as a consequence women get very stout; such are more liable to profuse hemorrhage at the dodging period.

DR. WILLIAM T. TAYLOR reported a case of

MALARIAL POISONING IN A NEW-BORN BABE.

We have frequently observed fevers of a malarial type in very young children, in some even during the first year, which were ushered in by a convulsion or other prodrome, without a rigor, as occurs in older persons, and their character is only recognized by a repetition of the attack in a day or two. But the youngest subject of this disease which I have met with is the following case.

Mrs. A. R., during her second pregnancy was affected with malarial fever, and, although she was then residing at the sea-shore, was obliged to take occasional doses of quinine to control it. She returned to her city residence at the end of the season, but continued using quinine from time to time until the end of her utero-gestation, which was completed in November last, when her babe was born. Her labor was natural and easy, and she had no unfavorable symptoms. The child appeared healthy, was of good color, but was smaller and feebler than her first-born at its birth. As she had a good supply of milk, it soon drew the breast quite vigorously.

About one week after its birth, the nurse called my attention to "weak spells" which it had occasionally, accompanied by coldness of the skin, a feeble circulation, and prostration which continued for fifteen or twenty minutes, and were followed by a clammy perspiration. By the application of heat to the body, and

giving it a little brandy and water or other stimulant, it would revive.

I observed that these "spells" had a periodicity occurring every two or three days, and considering them malarial, I gave the mother quinine and valerianate of iron, which, acting therapeutically through the milk, soon caused the "spells" to cease, and the babe became well and fat. I also gave it small doses of the elixir of cinchona for several weeks.

This child must have contracted this disease whilst in utero through the placental circulation, for being born in a perfectly healthy locality it was not exposed to any external malarial influence.

When labor began the quinine was stopped, and was not resumed until the condition of the child required it, when it soon showed its antiperiodic action by completely arresting these "weak spells," for now the child is perfectly well.

DR. R. P. HARRIS related a case of parallel character, which had occurred some years ago in a malarious neighborhood. The mother was under treatment before labor. The child had chills and fever when quite young, and was treated through the mother.

DR. W. H. BAKER reported for Dr. Walter F. Atlee a case of

ABDOMINAL SECTION.

Mrs. E. C., of Erie, Pa., was brought to this city by Dr. Edward Cranch. She was forty-five years of age, married, but had had no children. Her menses were regular and very abundant. She was a stout woman in excellent health. Four years ago she first noticed the tumor in the centre of the abdomen. Dr. Cranch reports that the probe enters the womb the normal distance only.

Diagnosis.—A multilocular cyst with thick walls and very glutinous liquid, or a fibroid tumor of the uterus. The sense of fluctuation was not distinct.

Operation.—February 4. After the usual preparation, cut down, found a solid tumor, opened it, took out as much as possible of the contents, and got out the envelopes; the incision was about five inches in length. The tumor grew from the fundus of the uterus. It was transfixed, tied, and dropped. The patient never rallied after the operation, and died on the 6th, of shock. There was no hemorrhage. The operation was all over in twenty-five minutes.

DR. R. P. HARRIS saw the patient prior to, and assisted in the operation. The lady had an appearance of health, was quite robust, and there was nothing in the contour or expression of her face indicative of ovarian cystoma. In a conversation with her sister and family physician, he learned that the diseased growth was first noticed by this sister, who remarked upon the central prominence of the abdomen of the patient, who was at the time lying on her back on the floor engaged in playing with a little child. When the attention of the patient was directed to the fact that her abdomen presented a central elevation even when flat upon her back, she readily detected the existence of something abnormal. Dr. Harris remarked to the physician that the history of the case indicated the existence of a tumor at the fundus uteri. When the morbid growth was exposed it did not present the appearance of an ovarian cyst; neither did percussion indicate the presence of fluid prior to incising the abdomen, except by a surface wave. There was no wave transmitted from hand to hand. The surface wave was found due to some ascitic fluid. As no fluid escaped by tapping, the tumor was opened and its contents torn away in pieces, so as to reduce it sufficiently, when it was drawn through the wound, ligated at its union with the fundus uteri, and cut away. During the shelling process a considerable loss of blood took place, and the appearance of the patient was that of great prostration. The tumor had no pedicle, being sessile in its attachment to the uterus.

MEDICAL SOCIETY OF THE COUNTY OF NEW YORK.

Stated Meeting, February 25, 1884.

THE PRESIDENT, S. OAKLEY VAN DER POEL, M.D., IN THE CHAIR.

DR. E. C. SPITZKA read a paper entitled

THE PATHS OF COÖRDINATION.

Progress in the localization of cerebral functions, he said in opening, had followed two different lines of research. The first was the observation and registration of phenomena following the irritation of the cerebral centres in experiments or in connection with disease. The second consisted in the anatomical study of the facts connecting certain centres with certain peripheries. The first was confessedly more or less empirical, and the two methods might be compared to two parties making an exploration of an unknown continent from different directions; the first instituting a survey of the coast and its indentations, and the second, starting from the interior and tracing out the water-courses and mountain-ranges in their relations to the coast. Between the two there would be a vast untried region, gradually diminishing in extent as the two parties approached each other. So was it in regard to the brain, in which the great intermediate region constituted a labyrinth not yet investigated; but the progress which was constantly being made in elucidating new points was gradually rendering its boundaries more and more restricted.

The case upon which the paper was based was one which Dr. Spitzka had the opportunity of studying for several years, and finally of making an autopsy in. It was one of pure unilateral ataxia without paralysis. The patient was a native of Germany, a male, and fifty-eight years of age when the trouble commenced. Dr. Spitzka saw him for the first time two months after its onset, which was characterized by a slight apoplectiform seizure, followed by numbness and impairment of coördination in the right arm and hand, accompanied by a ringing sensation in the part. The difficulty afterwards extended to the left lower extremity, and there was a marked clumsiness in gait, which was neither paralytic nor strictly ataxic; giving the impression of a vertiginous sensation. All the movements were of a more jerky character on the left side than on the right. Dr. Spitzka said that he made the diagnosis, at the time, of hemorrhage in the pons Varolii, and gave a qualified, unfavorable prognosis. He then gave an elaborate history of the symptoms and progress of the case, which

terminated fatally about five years after the original trouble was noted.

For two weeks before the patient died he suffered from intense cold, and death was preceded by dysphagia, delirium, and increasing coma. The main lesion discovered at the autopsy was a secondary degeneration affecting principally the stratum intermedium, which commenced about the lower third of the pons Varolii, just to the right of the median line, and extended on the right side down to the decussation of the pyramids, where it crossed to the left side. Dr. Spitzka made six hundred sections at different points in the course of the lesion, and it was found that scarcely a nerve-fibre was left in many parts. He said that there were but two cases on record resembling this. In the first, however, the anterior pyramids were also implicated, and hence its physiological importance was impaired. The second one, which was reported by Meyer, was, therefore, the only one which was strictly comparable to this. In regard to the sensation of intense cold coming on a short time before death, he said that at present he had under observation two patients suffering from paralytic dementia, in whom this was a prominent symptom. One of them was subject to successive chills, resembling those seen in severe malaria. Among the propositions that Dr. Spitzka advanced in connection with this case was one, that the stratum intermedium was probably continuous with the column of Goll, and, in conclusion, he said that he thought at least two and a half inches of the unknown labyrinth of the brain were cleared up by the light which the case threw on the paths of coördination.

DR. E. C. SEGUIN remarked that he thought Dr. Spitzka's interesting case would offer an explanation of some of the phenomena which he had observed in certain cases of his own, which he had studied during life, but in which he had not had the opportunity of making an autopsy. They were instances of brain-ataxia or hemi-ataxic tremor with parasthesia, and he had supposed them, on purely theoretical grounds, to be due to sclerosis localized in the hemispheres. Unlike Dr. Spitzka's, however, they were essentially chronic cases, and in none of them was there any history of an apoplectiform seizure. At the present time he had a case under observation in which there was ataxia of the right upper extremity, with no marked paralysis, but with some bulbar symptoms. There was slight impairment of articulation, and sometimes slight difficulty in swallowing. He thought it well to call attention to one or two difficulties in the way of adopting Dr. Spitzka's interpretation of his case. One was that the results of experiments served to show that the dorsal pyramidal or pineal decussation was sensory, and in this connection he mentioned the experiments of Brown-Séquard and others, in regard to the effect of hemi-section of the spinal cord in Guinea-pigs. So also, the symptoms produced by stab-wounds of the spinal cord, and the presence of tumors involving one-half of the cord, indicated the decussation within the cord of sensory conductors to the cerebrum. In the second place, while Dr. Spitzka had regarded ataxia as a symptom of the interruption of conduction by destruction of brain-tissue, Brown-Séquard had shown that it could be produced by simple irritation. This was very markedly the case in birds. In the human species, ataxic movements were observed when there was no secondary degeneration, and when the lesion was variously located in the cerebrum, the crura cerebri and the cerebellum. In post-paralytic chorea, as described by Dr. Weir Mitchell, a lesion was found in several cases in the internal capsule. Still, he was very much gratified that Dr. Spitzka had shown the results of this autopsy, and he could well see how it would throw some light on other cases, in connection with which there was more or less obscurity.

DR. SPITZKA said, in regard to Dr. Seguin's first objection, that he had not referred to sensation in his report of the case, but simply to coördination, and that Brown-Séquard did not allude to the muscular sense in connection with the experiments mentioned. After speaking of ataxia as a symptom of irritation, he went on to say that he did not believe the case on which he had based his paper would throw light on Dr. Seguin's cases, since he believed that they were of a different character, and belonged to the group of cases depending on a cortical or subcortical lesion. Thus there was a pure ataxia of intellectual type.

CORRESPONDENCE.

THE DWIGHT INSURANCE CASE.

To the Editor of THE MEDICAL NEWS.

SIR: I read your editorial of December 22, 1883, on the "Dwight Life Insurance Case." The case has attracted a great deal of attention, especially among the insured on this coast. Having been interested myself for many years as a life insurance examiner, I have followed the reports of the case pretty closely, and am satisfied that your views in regard to the case are entirely correct. You have stated, to my mind, the whole case in the few following sentences.

"The reason he had for taking so great an amount of insurance, may have been to secure large sums of money to his family and friends by a supreme fraud. When we reflect on the enormity of the crime, on his hopeful disposition and self-confidence, especially on the large enterprises which he had in view, it seems more rational to interpret his conduct by the light of other motives. From this point of view, the large insurance was intended to bridge over the period between the present impecuniosity, and that successful enterprise with 'millions in it,' which, as the testimony shows, he had entered upon. The disclosures of the post-mortem render it probable that he was in the incipiency of one of those forms of mental derangement characterized by expansive ideas. Pachymeningitis accompanied by a hemorrhagic extravasation is so common a condition in some forms of insanity, that we can hardly doubt its agency in this case. A large life insurance was a natural conception of a mind now about to enter on gigantic schemes of money-getting."

In confirmation of this view, allow me to give you a brief history of the following case: April 22, 1878, the agent of the Equitable Life Assurance brought to my office an applicant for examination; a gentleman whom I had known for several years, and whose family I had attended. I had known him as an active, intelligent, careful, temperate man; a lawyer by profession, but was then a broker; a man of most unexceptionable physique. I knew his means to be limited, and was surprised when I found his application called for fifty

thousand dollars. I expressed my surprise at the large amount; he replied that he had not thought of life insurance until a few hours before, when he met the agent on the street, who had suggested it to him, and that as he was about entering into some enormous schemes, the suggestion of life insurance was a good one, and he would, besides, take enough in other companies to make up two or three hundred thousand dollars. A man whom I knew to be without means, proposing to take two or three hundred thousand on his life, interested me at once. I drew him out on the grand schemes to which he referred, and found that they were wilder than the proposed enormous amount of life insurance. He was going to organize a grand mining company, which would have rivalled the schemes of John Law.

The man's manner was rather excited, his eye restless, and his pulse somewhat quick; in other respects he had an elegant physique; proportions about perfect. I informed him that his pulse was rather excited, and that I would have to postpone the examination to another time. He explained the condition of the pulse, saying he had been in the Board all day; there had been great excitement in stocks, and that he expected to make a deal that would at least net him a million or two. He was anxious that I would see him in the evening when his pulse was quiet, that he might consummate the application; as he would not apply to the other companies until he had passed this one; and that he would like to have at least a couple of hundred thousand on his life until he was successful with some of his grand schemes.

A few minutes after he had left, the agent came in and asked me if I ever had examined so perfect a risk. I replied that I had rejected him, that he was insane. The agent certainly took me for the insane man. He had known the applicant for years, had seen him almost daily on the street. I promised to reëxamine him in a week's time. About two or three weeks after the examination, there was a great excitement on the street; the applicant Willard had drawn his pistol and shot and wounded a man with whom he had had some little slight business trouble. (This was a new *rôle* for Willard.) He was immediately arrested and taken to jail. While his father-in-law was looking for bail, he met the insurance agent, who informed him that I had rejected his son-in-law Willard the week before for insanity. Acting from this clue, the father-in-law immediately summoned the Board of Insane Commissioners to examine Willard, and acquit him on the grounds of insanity. The Commissioners, after a careful examination, declared that he exhibited no traces of insanity; that he was perfectly sane and responsible for his acts. He was, however, soon bailed out; he was greatly excited and pained at what had occurred.

I was then sent for and consulted. I advised them to take him to the country to his mother's, a few miles above Stockton, where he could have perfect quiet, but for them to stop in Stockton on the way, and send for Dr. Shurtliff, who had been twenty years Superintendent of the Stockton Insane Asylum, and that I was satisfied that Dr. Shurtliff would recognize incipient cerebral disease as the real cause of his wild schemes and his attempt at shooting.

The next day they left town, stopped at Stockton and consulted Dr. Shurtliff, who found the patient much quieter, perfectly reasonable, and willing to put himself under Dr. Shurtliff's care. The doctor explained to him that this mental excitement was due to incipient brain disease, and that he had better go into the Asylum and be treated, which he did.

He was committed June 14, 1878, and remained in the Asylum until December 4, 1878, having improved some mentally, but weaker physically. Dr. Shurtliff made the following notes on the Asylum books: Paretic, but not demonstrative, except in the idea of wealth; shows paralysis in his gait, but not in speech. He died a few weeks after he left the Asylum, with cerebral disease. No post-mortem. There are strong probabilities that if I had accepted him (Willard) for fifty thousand dollars, other companies would have accepted him, and he would have had two or three hundred thousand dollars on his life within a week. And yet he had never thought of insuring his life until it had been suggested to him by accident on meeting the agent on the street a few hours before he made the application.

While the later history and death of Willard differs from Dwight, the conceptions to secure this great amount of insurance in both cases were probably the result of incipient disease. I must say, however, that I rejected Willard, not upon any objective or subjective symptoms of physical disease that I could detect, but purely upon the grounds that it would be unsafe to accept a man for life insurance who was so utterly reckless and regardless of the financial requirements necessary to carry out such enormous speculations. A sane mind must recognize that it requires some money, at least, to carry on enormous financial schemes and to pay the premiums on two or three hundred thousand dollars life insurance.

W. F. McNUTT, M.D., M.R.C.S. Ed.,
Professor of the Principles and Practice of Medicine in the University of California.

THE VALUE OF LIME INHALATIONS IN DIPHTHERIA.

To the Editor of THE MEDICAL NEWS.

SIR: In the number of your journal for March 1, 1884, there is an editorial on "The Treatment of Diphtheria." Lime is therein mentioned as a solvent of the false membrane, and it is placed next to diluted lactic acid in efficacy. The methods of application given are two in number. The first is that in which the lime is in aqueous solution, and is brought in contact with the diseased parts by means of a mop or spray producer. The second "has been effectively employed by having the patient breathe the vapor arising from slacking lime."

It is the last statement which forms the subject of my note. It is immaterial to ascertain who the originator of the method was, but from the fact that these directions are given in some text-books, are extensively practised, and are countenanced by the article referred to above, I have thought it not improper to examine into the value of using lime in this form.

A little reflection will lead one to suspect that lime vapor is only imaginary, and a simple experiment will confirm the doubt. If lime be contained in the steam which is developed during its hydration, it should be readily detected in the condensed fluid.

The vapors from slacking lime, and the distillations of the officinal lime water, as well as of milk of lime, give no response to calcium tests.

It is consequently evident from this that the value of the treatment depends on another agent. It is the vapor of hot water that has made the lime inhalations useful, and that steam has its advocates in diphtheria is mentioned in your paper.

Yours respectfully,

LOUIS KOLIPINSKI, M.D.,
Resident Physician in the Children's Hospital,
Washington, D. C.

NEWS ITEMS.

CHICAGO.

(From our Special Correspondent.)

THE HOSPITAL INTERNESHIP has finally become a popular thing among young medical men and hospitals in Chicago. A few years ago the County Hospital and Mercy Hospital were the only institutions where internships could be competed for. Now the Michael Reese, St. Luke, and Alexian Brothers' hospitals are added to the list. This season there has been manifested an unusual interest in the appointments in these hospitals, and so the number of candidates is large.

THE EXAMINATION OF THE INSANE.—A murder occurred about a month ago which illustrates at once the necessity of care in the examination of the insane, and the danger of insisting upon too rigid requirements in proof of insanity. Shortly before last Christmas, a man about fifty years of age, and in good physical health, but of exceedingly bad habits, was taken by his family to the Probate Court for examination. His wife and neighbors all testified that he was frequently subject to fits of the most violent and uncontrollable passion, and that he often did most uncontrollable things. He was adjudged sane, and his eccentricities attributed to intemperance. He was sent home, where he continued to live with his wife and children, and although he ceased drinking, his maniacal attacks grew more frequent and more constant. His family were too poor to send him to a private sanitarium, and felt that they were compelled to nurse him as best they could. As stated, about a month ago, after several days and nights of constant raving, he killed his wife in a most brutal manner.

INDIANAPOLIS.

(From our Special Correspondent.)

SMALLPOX has again made its appearance in this city, but so far has been almost entirely confined to the city. About two months ago, a case developed in the County Jail, in which about two hundred were confined at the time, the diagnosis of which was hindered by a simultaneous syphilitic eruption until the case was far advanced. Steps were immediately taken by our excellent Health Board to stamp out the plague by quarantining the jail and city station house, and vaccinating all the inmates with bovine virus. About thirty cases developed in spite of these precautions, which were all removed to the smallpox hospital as soon as the cases were diagnosed. About fifty cases in all have sprung up in the city, the greater number of the eighteen or twenty cases developed outside the jail, being recently discharged inmates. The source of the contagion has not been traced. The jail was in good condition as to cleanliness.

THE MEDICAL COLLEGE OF INDIANA.—At a recent meeting of the trustees of the "Medical College of Indiana," two new chairs were added, viz.: Diseases of the Skin, and a chair on Clinical Medicine. Dr. W. F. Hayes was elected Professor of Diseases of the Skin, and Dr. W. N. Wishard Professor of Clinical Medicine. Dr. Wishard is now Superintendent of our City Hospital. The College this year graduated forty-three.

THE INDIANA STATE MEDICAL SOCIETY MEETING has been postponed until after the meeting of the American Medical Association.

PANCREATIZED MILK.—At a recent meeting of the Marion County Medical Society of this city, Dr. F. A. Morrison, Physician to the Quilp's Orphan Asylum, read a paper on "Pancreatized Milk in the Digestive Troubles of Infants," in which he advocated the use of pancreatized mllk in raising babies by the bottle. He presented good evidence that it both cured and prevented vomiting and diarrhœa. He prepares it by adding one teaspoonful and a half of liquor pancreaticus to a pint of milk; let stand one hour; add five grains of bicarbonate of soda, and feed through the nursing-bottle. He also recommends it in acute gastritis of adults.

BERLIN.

(From our Special Correspondent.)

BERLIN STATISTICS IN 1883.—The statistical office of the city of Berlin (under the superintendence of Privy Councillor Boeckh) publishes the following figures which may be of general interest:

The monthly average number of inhabitants during the year 1883 was 1,207,114, with an average death-rate of 29.04 per thousand.

The month of July exhibits the highest mortality, 53.34 per thousand; the month of December the lowest, 23.54. The number of still-born children (which is *not* included in the foregoing figures) amounts to 1394, or 1.41 per thousand of the population; against 38,375, or 36.63 per thousand of births of living children.

The mortality of infants in the first year represents 37.24 per cent. of the total mortality; of those from one year until five years old, 20.49 per cent. of the same.

Among infectious diseases, only three have exerted a serious influence, viz., *diphtheria* with 7.37 per cent. (!) *measles* with 3.35 per cent., and *scarlet fever* with 2.47 per cent. of the total mortality. Death from *whooping-cough* shows 1.05 per cent. and from *typhoid fever* only 0.63 per cent. of the total number of the deceased. *Pulmonary phthisis* (with 11.47 per cent.) is not yet enlisted among infectious diseases. Death from *pneumonia* and *pleuritis* ensued in 6.79 per cent., and from *infant diarrhœa* in 8.27 per cent.

334 persons were killed by accident; 400 died by suicide; 7 were murdered, and 2 executed.

HONORARY DEGREES FROM THE UNIVERSITY OF EDINBURGH.—On the occasion of the Celebration of its Tercentenary Anniversary, the University of Edinburgh

has invited Prof. S. D. Gross, of Philadelphia; Dr. Fordyce Barker, of New York; and Dr. J. S. Billings, U. S. A., to accept the honorary degree of LL.D. Prof. Gross will be prevented from being present to receive the degree, but Drs. Barker and Billings will sail for Europe on April 2d.

BELLEVUE HOSPITAL MEDICAL COLLEGE COMMENCEMENT.—The Twenty-third Annual Commencement of this College was held in Steinway Hall, on Thursday evening, March 13th. The degree of M.D. was conferred upon one hundred and forty-nine graduates.

UNIVERSITY OF NASHVILLE, AND VANDERBILT UNIVERSITY.—The Commencement exercises of the Medical Departments of these institutions were held on February 25th. The degree of M.D. was conferred upon one hundred and twelve graduates.

UNIVERSITY OF MARYLAND; SCHOOL OF MEDICINE.—At the Seventy-seventh Annual Commencement of this School, held on March 14th, the degree of M.D. was conferred upon seventy-four graduates.

CENTRAL COLLEGE OF PHYSICIANS AND SURGEONS, INDIANAPOLIS.—At the Annual Commencement of this College, held on February 29th, the degree of M.D. was conferred upon twelve graduates.

MEDICAL DEPARTMENT OF THE UNIVERSITY OF BUFFALO.—The thirty-eighth annual commencement of this institution was held on February 26. The degree of M.D. was conferred upon sixty-two graduates.

THE NATIONAL MEDICAL COLLEGE, WASHINGTON, D. C.—The sixty-second annual commencement exercises of the National Medical College (Medical Department of Columbia University, Washington, D. C.) was held on the 20th instant, at which time fourteen gentlemen received the degree of Doctor of Medicine, and thirteen others were reported to have passed a successful examination in the primary branches.

MEDICAL DEPARTMENT OF THE UNIVERSITY OF GEORGETOWN.—A committee of three was appointed at a recent meeting of the Faculty of the Medical Department of the University of Georgetown, D. C., to report a plan for securing a suitable building for college purposes.

POLYCLINIC IN BALTIMORE.—The Baltimore Polyclinic and Post-Graduate Medical School has been recently organized, and is located at 112 Hanover Street. The Faculty consists of Drs. Alan P. Smith, J. Edward Michael, H. Clinton McSherry, B. Bernard Browne, Thomas A. Ashby, Samuel Theobald, Robert B. Morison, Randolph Winslow, T. Barton Brune, Wm. A. Moale, John W. Chambers, Thomas S. Latimer, and Ferdinand E. Chatard.

CONFIDENTIAL COMMUNICATIONS.—MR. WILLOUGHBY N. SMITH, of the Baltimore Bar, and Lecturer on Medical Jurisprudence in the College of Physicians and Surgeons, states that the following gives correct expression to the existing rule of law on this subject in the United States:

In the absence of any statutory provision to the contrary, it is well settled that a physician or surgeon may be *compelled* to disclose any communication made to him in professional confidence.—*Stephens's Digest of Evidence*, Art. 117.

The States which have enacted statutes changing this rule of the common law are the following:

Wisconsin, New York, Michigan, Iowa, Minnesota, Missouri, Ohio, Indiana, and Nebraska.

The statute of Wisconsin provides that "no person duly authorized to practise physic or surgery, shall be *compelled* to disclose any information which he may have acquired in attending any patient in a professional character, and which information was necessary to enable him to prescribe for such patient as a physician, or to do any act for him as a surgeon."—*Wisconsin Revised Statutes*, Sec. 4075.

The statutes adopted in New York, Michigan, Minnesota, Missouri, Ohio, Indiana, and Nebraska, provide *either*, that a "person duly authorized to practise physic or surgery" shall not be "competent," or that he shall not be "*allowed*," to make the disclosure. *But* by the statutes of Iowa, Indiana, and Minnesota, such testimony "may be received with the consent of the patient" in all cases, and in Minnesota the prohibition, in the absence of such consent, is confined to civil cases: the "regular physician or surgeon" may be *compelled* in that State, in criminal cases, to disclose communications reposed in him in confidence by a patient while in actual attendance upon the patient in the capacity of medical adviser.—*Maryland Medical Journal*, March 1, 1884.

THE CHAIR OF BOTANY IN THE UNIVERSITY OF OXFORD.—The Professorship of Botany in the University of Oxford has been recently filled by the election of DR. ISAAC BAYLEY BALFOUR, Regius Professor of Botany in the University of Glasgow. Dr. Balfour is the son of the late Prof. Balfour, of Edinburgh.

INTERNATIONAL CONGRESS OF HYGIENE.—The fifth International Congress of Hygiene will meet at the Hague, August 21 to 27, 1884. The papers to be read will consider individual and general hygiene, sanitary, police, demiography, and medical statistics.

THIRTEENTH CONGRESS OF THE GERMAN SURGICAL SOCIETY.—The Thirteenth Kongress der deutschen Gesellschaft für Chirurgie will be held on the 16th to 19th of April, in Berlin. The following papers have been announced:

1. Dr. Zesas (Zürich), The Physiological Relation between the Spleen and the Thyroid Gland—The Treatment of Paraplegia in Spondylitis.
2. Dr. Cramer (Wiesbaden), Ferment-intoxication caused by a Blood-cyst.
3. Dr. Zabludowsky (Berlin), Massage.

CHOLERA.—Consular reports from Calcutta show twenty deaths from cholera at that place during the three weeks ending January 19, 1884.

YELLOW FEVER.—There were sixteen deaths from yellow fever at Havana during February, as against ten for the same month last year. Sanitary Inspector

Burgess continues disinfecting vessels loading and unloading at suspicious wharves. Reports from Rio state that there were thirteen deaths from yellow fever for the week ending January 26, 1884.

SOME VITAL STATISTICS OF ST. PETERSBURG.—The consul at St. Petersburg, in a consular report recently made, gives the following interesting statistical data. At the examination of recruits for the Russian army, during 1882, of 1000 candidates examined, 460 were rejected as being "too narrow-chested," 50 had pulmonary tuberculosis, and 10 from "poverty of blood." On the whole, 57.5 per cent. were rejected for physical disability. It was found that over 50 per cent. of the young men of St. Petersburg between twenty and twenty-two years of age were "weak and sickly." Of the population of the city, 2000 were affected with bodily infirmities: 771 were blind; 707 deaf or dumb, or both; 188 without arms, and 282 without legs. Blindness was twice as common among women as men, but the latter show a larger proportion of cripples. Of the 771 blind, it was congenital in 134, and of the 707 deaf and dumb, it was congenital in 409,

WAR-WOUNDS.—From a calculation based on the statistics furnished by the Crimean, the Dano-Prussian, the Austro-Prussian, and the Franco-Prussian wars, it would appear that the proportion of wounds received in different parts of the body is as follows: in the head, 14.65 per cent.; in the trunk, 18.17 per cent.; in the upper extremities, 30.19; in the lower extremities, 36.91. The statistics only apply to cases which have lived long enough to receive surgical treatment, and this will account for the very low percentage of wounds of the head; and the same remark applies in hardly less degree to wounds of the trunk.—*British Medical Journal*, February 16, 1884.

MEDICAL STUDENTS AT SWISS UNIVERSITIES.—The medical students of the Swiss universities are thus distributed, according to the *Lancet* of February 9, 1884: Basle, 108; Berne, 127 males and 28 females; Zurich, 184 males and 33 females; Geneva, 84 males and 7 females. Only five of the women are Swiss, all the others being Russian.

HEALTH IN MICHIGAN.—Reports to the State Board of Health for the week ending March 8, 1884, indicate that influenza and dysentery have increased, and that rheumatism and consumption have decreased in area of prevalence.

Including reports by regular observers and others, diphtheria was reported present during the week ending March 8th, and since, at twelve places, scarlet fever at twenty-four places, and measles at seven places. One case of smallpox was reported in Bath Township, March 7th.

OBITUARY RECORD.—Died in Louisville, on March 12th, of neuralgia of the heart, LUNSFORD PITTS YANDELL, M.D. For several years he has been well known as the able editor of the *Louisville Medical News*.

A little more than six years ago his illustrious father, whose name he bore, passed away at the ripe age of seventy-three, and now the son, at least twenty years his junior, has gone over to the majority. Alas that a life thus incomplete, unfinished, should meet with such abrupt end! The father died in the evening after a day of marked usefulness and great honor, but the son, when noon was but little passed, in the meridian of his power, filling an important place as teacher, editor, and practitioner. To his widow and to his children—too young to understand the greatness of their loss—as well as to his brother, Dr. David W. Yandell, thus left in sad loneliness, the hearty sympathies of the profession are freely given.

——In Philadelphia, on March 17th, after a long illness, CASPAR MORRIS, M.D., aged 79 years. Dr. Morris was born in Philadelphia, in 1805. He received his degree in Medicine from the University of Pennsylvania in 1826. After a term of residency in the Pennsylvania Hospital, he went to India as surgeon of a ship. On his return he commenced practice in Philadelphia. He was for some time Lecturer on Diseases of Children in the Philadelphia Hospital, and on the Practice of Medicine in the Philadelphia Medical Institute; and he was the author of a volume of lectures on *Scarlet Fever*.

Dr. Morris was greatly esteemed for his gentleness and purity of character, as well as for his integrity and high sense of honor, and he was beloved by all who had the good fortune to know him as friend, physician, or citizen.

CORRIGENDUM.

DR. F. LANGE, of New York, requests us to state that some six months ago he resigned the position of Visiting Surgeon to Bellevue Hospital, and that, therefore, this appointment, which was appended to his name on page 255 in our issue of last week, does not now belong to him.

OFFICIAL LIST OF CHANGES IN THE STATIONS AND DUTIES OF OFFICERS SERVING IN THE MEDICAL DEPARTMENT, U. S. ARMY, FROM MARCH 11 TO MARCH 17, 1884.

BILLINGS, JOHN S., *Major and Surgeon.*—Granted leave of absence for one month with permission to go beyond the sea, to take effect April 1, 1884.—*Par. 6, S. O. 61, A. G. O.*, March 13, 1884.

BACHE, DALLAS, *Major and Surgeon.*—Leave of absence still further extended seven days.—*Par 1, S. O. 50, Headquarters Department of the East*, March 14, 1884.

HEIZMANN, CHARLES L., *Captain and Assistant Surgeon.*—Leave of absence extended three months.—*Par. 9, S. O. 57, A. G. O.*, March 8, 1884.

BLACK, CHARLES S., *First Lieutenant and Assistant Surgeon.*—Assigned to duty at Fort Concho, Texas.—*Par, 6, S. O. 30, Headquarters Department of Texas*, March 10, 1884.

KNEEDLER, WILLIAM L., *First Lieutenant and Assistant Surgeon.*—Assigned to temporary duty at Fort A. Lincoln, D. T.—*Par. 3, S. O. 26, Headquarters Department of Dakota*, March 8, 1884.

WALES, PHILIP G.—Appointed to be Assistant Surgeon with the rank of First Lieutenant, to date from February 7, 1884, vice Brewster, resigned.—*Mem. A. G. O.*, March 10, 1884.

THE MEDICAL NEWS *will be pleased to receive early intelligence of local events of general medical interest, or of matters which it is desirable to bring to the notice of the profession.*

Local papers containing reports or news items should be marked.

Letters, whether written for publication or private information, must be authenticated by the names and addresses of their writers—of course not necessarily for publication.

All communications relating to the editorial department of the NEWS *should be addressed to No. 1004 Walnut Street, Philadelphia.*